METEOROLOGICAL STATIONS AND OBSERVERS

VITTORIO EM. III

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METEOROLOGICAL

STATIONS AND OBSERVERS

OF THE

SMITHSONIAN INSTITUTION

IN

NORTH AMERICA AND ADJACENT ISLANDS,

FROM

THE YEAR 1849 UP TO THE END OF THE YEAR 1868.

BIBLIOTECA PROVINCIALE di NAPOLI

WASHINGTON:
SMITHSONIAN INSTITUTION.
Nov., 1869.

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LIST

OF

SMITHSONIAN METEOROLOGICAL STATIONS AND OBSERVERS IN NORTH AMERICA AND ADJACENT ISLANDS FROM 1849 UP TO THE END OF THE YEAR 1868.

Those marked with a * are deceased.

Name of station.	Name of observer.	Years of observations.
ANTILLES.		
Sombrero Island	Alexis Julien	1863–'64
Sombrero Island	Milton Brayton	1865
BAHAMAS.		
Turk's Island	J. B. Hayne	1859
Turk's Island	J. C. Crisson, Capt. W. Hamilton.	1860
Turk's Island	*A. G. Carothers	1861
Turk's Island	United States consul.	1862–'65
Turk's Island	J. C. Crisson, United	1868
Turk's Isl., Salt Cay	Samuel G. Garland.. States vice consul.	1861
Nassau, N. P.	A. M. Smith	1858–'59
BERMUDA.		
Hamilton	Capt. Alexander, R.E.	1852
Hamilton	Royal Gazette	1857
Shelby Bay	James B. Arnold	1857
St. George's	James Crawford	1858
St. George's	Centre signal station, Royal Engineers, in Royal Gazette.	1858–'68
Ireland Island	John G. Calder	1859
CANADA.		
Clifton	W. Martin Jones, U. States consul.	1867–'68
Hamilton	Dr. W. Craigie	1857–'62
Kingston	J. Williamson, (dire'r Kingston Observ'y.)	1859–'60
Michipicoten	Colin Rankin	1860–'66
Montreal	Dr. A. Hall	1855–'63
Montreal	Thos. Blackwell	1861
Niagara	H. Phillips	1861–'63
Port Neuf	Observations publis'd in the Naturaliste Canadien.	1868
St. Martin's, near Montreal.	Dr. Chas. Smallwood.	1852–'62
Stanbridge	J. C. Baker	1857–'65
Stanbridge	A. H. Gilmour	1868
Stratford	C. J. Macgregor	1861–'62
Toronto	Magnetic Observatory	1856–'68
Toronto	Capt. J. H. Lefroy	1849
		1851–'52
COSTA RICA.		
Limon	Felipe Valentin	1865–'66
San José	C. N. Riotte	1862–'66
San José	Dr. A. Von Frantzius.	1866–'67
San José	Oficina Central di Estadistica.	1867–'68
GUATEMALA.		
Guatemala	Antonia Canudas	1858–'62
HONDURAS.		
Belize	S. Cockburn	1862–'68
Truxillo	E. Purdot	1854
HUDSON'S BAY TERRITORY.		
Abhtihbe post	Jas. Lockhart	1868
Fort Anderson	R. Macfarlane	1863
Fort George	R. Macfarlane	1863
Fort Liard	*R. Kennicott	1860
Fort Nascopee	H. Connolly	1863–'65
Fort Norman	Andrew Flett	1862–'63
Fort Rae	Lawrence Clark, jr	1859–'60
Fort Rae, Great Slave L.	Mrs. Lawrence Clarke, jr.	1861–'64
Fort Simpson, Grt. Slave L.	B. R. Ross	1848–'61
Kenoqnmissee	Thos. Richards	1861–'63
Little Whale River	Walter Dickson	1862
Moose Factory	J. Mackenzie	1857–'62
Moose Factory to Lake Superior.	Colin Rankin	1862
Red River settlem't.	Donald Gunn	1857–'61
Rigolet, Labrador	H. Connelly	1859–'60
JAMAICA.		
Upper Park Camp	James G. Sawkins	1855–'56
Upper Park Camp	Col. W. B. Marlow	1855
MEXICO.		
Chinamaca	Charles Laszlo	1859
Cordova	J. A. Hieto	1858–'60
		1862, '64
Frontera, Tabasco	Charles Laszlo	1865
Mexico	Prof. L. C. Ervendberg	1855–'56
Minititlan	Charles Laszlo	1858–'60
Mirador	Dr. Chas. Sartorius	1858–'68
San Juan Bautiste	Charles Laszlo	1861–'64
Tuspan	Benjamin Crowther	1867
Vera Cruz	Hermann Berendt, M.D.	1859
NEW BRUNSWICK.		
St. Johns	G. Murdock	1859–'68
NEWFOUNDLAND.		
St. Johns	*Jno. Delany, jr., and *E. M. J. Delany.	1857–'64
St. Johns	H. B. M. Milit'y Post.	1849
St. Johns	Rev. R. C. Caswell, M. A.	1868
NEW GRANADA.		
Aspinwall	W. T. White, M. D	1857–'65
Aspinwall	*J. P. Kinge, M. D	1865–'66
		1868
Aspinwall	*J. P. Kinge, M. D., and G. V. Rucker, M. D.	1867
NICARAGUA.		
.....	J. Moses	1855

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List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
NOVA SCOTIA.		
Halifax	Royal Engineers	1859–'61
Halifax	Col. W. J. Myers, F. B. M.	1863–'65
Halifax	Board of Trade	1854
Halifax	R. J. Nelson	1859
Horton	C. F. Hertt	1858
Picton, (Albion Mines.)	Henry Poole	1843–'55
Windsor	King's College	1857–'62
Wolfville	Acadie College	1854 1860–'62
Wolfville	Prof. D. F. Higgins	1867–'68
Wolfville	C. F. Hartt	1859
Wolfville	Prof. A. P. S. Stuart	1855–'58
PORTO RICO.		
Est. San Ysidro	George Latimer	1868
SAN SALVADOR.		
La Union	Charles Dorat, M. D.	1858
ST. DOMINGO.		
	Jonathan Elliott	1860
VANCOUVER'S ISLAND.		
Victoria	David Walker, M. D	1863–'64
ALABAMA.		
Ashville	Thomas M. Barker	1857
Auburn	Prof. John Darby	1854–'58
Benton	Dr. Chas. F. Percival	1849–'51
Boligee	Col. Horace Harding	1860
Bon Secours	W. J. Van Kirk	1866–'67
Cahaba	Matthew Troy, M. D.	1859
Cariowville	H. L. Alison, M. D	1856–'60 1867–'68
Erie	Dr. Sem'l K. Jennings	1849
Erie	Dr. T. C. Osborne	1851–'52
Entew	A. Winchell	1851–'52
Fish River	W. J. Van Kirk	1868
Greensboro'	Robert B. Waller	1856–'62
Greensboro'	N. T. Lupton	1868
Green Springs	H. Tutwiler	1854–'58
Havana	Prof. H. Tutwiler	1853 1859–'61 1866–'68
Havana, six miles east of.	S. K. Jennings, M. D.	1868
Livingston	Rev. S. U. Smith	1859–'60
McMeth's P. O	R. T. Meriwether	1854
Mobile	Dr. S. B. North	1849
Mobile	Rev. J. J. Nicholson	1859
Monroeville	S. J. Cumming	1849 1851–'55
Montgomery	Rev. J. A. Shepherd	1859–'61
Montgomery	W. L. Foster	1859–'60
Moulton	Andrew J. Harris	1866
Moulton	Thomas J. Peters	1866–'68
Moulton	Prof. J. Shackelford	1861
Moulton	Ashley D. Hunt	1859
Opelika	J. H. Shields	1867–'68
Orville	Dr. S. K. Jennings	1859–'60
Orville	T. A. Huston and J. A. Coleman.	1960
Prairie Bluff	William Henderson	1867
Prairie Bluff	R. M. Reynolds	1867
Selma	Dr. S. K. Jennings	1858–'59
Spring Hill	A. Cornette, S. J	1866
Tuscaloosa	Prof M. Tuomey	1853–'54
Tuscaloose	George Benagh	1854–'55
Union Springs	J. L. Monitrie	1868
Uniontown	Rev. R. A. Cobbs	1859–'60
Wetokaville	Benj. F. Holly	1849 1851–'54
ALASKA.		
Fort Yonkon	* R. Kennicott	1861
Nulato	W. H. Dall	1866–'67
Sitka	Dr. Alex. H. Hoff	1867–'68
St. Michaels	H. M. Bannister	1865–'66
St. Michaels	J. M. Bean	1865–'66
Unalakleet	F. Westdahl	1866–'67
ARIZONA.		
Fort Whipple	Dr. E. Cones, U. S. A	1865
ARKANSAS.		
Arkadelphia	Dennis Barlow	1859
Arkadelphia	Female College	1860
Bentonville	Paul Graham	1859–'61
Brownsville	B. F. Coulter	1859–'60
Buckborn	Armistead Younger	1859
Doukesville	Miss Sue McBeth	1860
Fort Smith	Rev. Francis Springer	1866–'67
Gainesville	James T. Davies	1859
Green Grove	Robert Burris, M. D	1860
Helena	O. F. Russell	1865–'68
Jacksonport	G. Alexander Martin, M. D.	1859–'60
Little Rock	Philip L. Anthony	1849
Micco	Rev. H. F. Buckner	1860
Mountain Home	J. S. Howard	1861
Perryville	W. H. Bleckwell	1859–'61
Perryville	H. F. Hardy	1856
Spring Hill	P. F. Finley	1859
Spring Hill	J. Reynolds	1859–'60
Spring Hill	P. F. Finley and J. Reynolds.	1860
Waldron	Geo. W. Featherstone	1859–'60
Washington	Alex. P. Moore, M. D	1861
Washington	Dr. N. D. Smith	1849–'61
Yellville	J. W. Wenst	1859–'60
Yellville	W. B. Flippin	1859–'60
CALIFORNIA.		
Auburn	Robert Gordon	1859–'60
Columbia	Silas Eerle, M. D.	1857–'60
Crescent City	Robert B. Randall	1859–'60
Downieville	T. R. Kibbe, M. D	1860
Folsom	Rev. S. V. Blakeslee	1861
Fort Yuma		1867
Honcut	James Sleven	1859
Honcut	J. Slaven and Mrs. E. S. Dunkum.	1860
Honcut	Mrs. E. S. Dunkum	1861–'63
Mare Island	U. S. Naval Hospital	1868
Mersh's Ranche	Francis M. Rogers	1867–'68
Martinez	Edwin Howe	1860
Marysville	W. C. Belcher	1857–'59 1861–'63
Meadow Valley	James H. Whitlock	1860–'62
Meadow Valley	Colbert A. Canfield, M. D.	1864
Meadow Valley	M. D. Smith	1863–'68
Mokelumne Hill	Wesley K. Boucher	1859–'61
Monterey	Colbert A. Canfield, M. D.	1859–'60 1864–'68
Murphy's	Ephreim Cutting	1868
Presidio of San Francisco.	W. W. Hays, M. D	1862
Presidio of San Francisco.	D. F. Parkinson	1863–'64
Presidio of San Francisco.	Post surgeon	1852–'61
Sacramento	Dr. F. W. Hatch	1854
Sacramento	Drs. F. W. Hetch and T. M. Logan.	1855
Sacramento	Dr. T. M. Logan	1849–'68
Sacramento	Charles Craft	1863
San Francisco	W. O. Ayres, M. D	1856–'63 1865–'68
San Francisco	Dr. H. Gibbons	1854–'55

List of Smithsonian meteorological stations and observers.—Continued.

Name of station.	Name of observer.	Years of observations.
CALIFORNIA—Con.		
Santa Barbara	W. W. Hays, M. D.	1864
Santa Clara	Prof. O. S. Frombes	1859–'61
Santa Clara	Lewis A. Gould	1859
Spanish Ranche	M. D. Smith	1862–'63
Spanish Ranche	Mrs. M. D. Smith	1864–'66
Stockton	Dr. Robert K. Ried	1855–'56
Stockton	Walter M. Trivett	1867
Union Ranche	W. L. Dunkum	1858
COLORADO.		
Central City	W. D. McLain	1860–'61
Denver City	D. C. Collier	1859
Denver City	Fred. J. Stanton	1862
Fountain	Arthur M. Merriam	1866–'67
Golden City	E. L. Berthoud	1867
Montgomery	James Luttrell	1863–'65
Mountain City	Dr. William T. Ellis	1860–'62
CONNECTICUT.		
Brookfield	Sanford W. Roe	1868
Canton	Jarvis Cuse	1861–'63
Colebrook	Miss C. Rockwell	1860–'68
Columbia	W. G. Yeomans	1856–'68
East Windsor Hill	P. A. Chadbourne	1852
Georgetown	Aaron B. Hull	1855–'57
Groton	Rev. E. Dewhurst	1866–'68
Hartford	Charles H. Hoadley	1849–'51
Middletown	Prof. J. Johnston	1854, '58
		1859–'68
Middletown	* Prof. A. W. Smith	1849, '51
		1852
New Haven	H. G. Du Bois, jr	1859
New Haven	D. C. Leuvenworth	1862–'64
New Haven	Prof. E. Cutler	1849, '51
New London	Rev. Tryon Edwards, D. D.	1849, '51
		1852–'58
North Colebrook	M. H. Cobb	1849, '51
Norwich	N. Scholfield	1855–'58
Plymouth	Dwight W. Learned	1862–'64
Pomfret	Rev. Daniel Hunt	1853–'68
Salisbury	Dr. Ovid Plumb	1849, '51
		1853–'54
Saybrook	James Rankin	1853–'61
Wallingford	Benj. F. Harrison	1856–'62
Waterbury	Rev. R. G. Williams	1867–'68
West Cornwall	T. S. Gold	1854
Windsor	R. H. Phelps	1851
DAKOTA.		
Fort Union	F. G. Riter	1857–'58
Greenwood	Freeman Norvell	1859–'61
Yuneton	M. K. Armstrong	1865
Yaneton	G. D. Hill, G. W. Lawson, H. G. Williams.	1862
Yancton	H. G. Williams	1863
DELAWARE.		
Delaware City	L. Vankekle	1866–'67
Dover	J. P. Walker	1854
Georgetown	Dr. D. W. Mauld	1859
Lewes	John Burton	1849
Milford	R. A. Martin	1857–'58
Newark	Prof. W. A. Norton	1849
Newark	Prof. E. D. Porter	1852
Newark	Prof. W. A. Crawford	1854
Newark	Prof. W. A. Crawford, R. A. Martin.	1855
Newark	Prof. W. A. Crawford, R. A. Martin, and T. J. Craven.	1856
Newark	Thos. J. Craven and Mrs. E. D. Porter.	1857
Newark	Mrs. E. D. Porter	1858
Newark	Robert Crawford	1856
Wilmington	* Urban D. Hedges	1863–'65
DIST. OF COLUMBIA.		
Georgetown	Rev. C. B. McKee	1860–'63
Washington	U. S. N. Observatory	1852–'60
		1864–'67
Washington	J. Wiessner	1857–'58
FLORIDA.		
Alligator	Edward R. Ives	1857–'58
Atsena Otie	Hon. Aug. Steele	1859–'61
Belair	Benj. F. Whitney	1857–'58
Cedar Keys	Judge Aug. Steele	1851–'58
Cedar Keys	W. C. Andrus	1867
Chesnut Hill	John Newton	1851
Fernandina	* Henry M. Corey	1867
Gainesville	James B. Bailey	1855–'61
Gamon	P. C. Garvin, M. D.	1866
Gordon	H. B. Scott	1866–'68
Green Cove Spring	G. A. Boardman	1868
Hibernia	F. L. Bachelder	1857–'58
Jacksonville	Dr. A. S. Baldwin	1853–'60
		1866–'68
Key West (Salt Pond.)	W. C. Dennis	1854–'64
Key West (Magnetic Observa'y.)	George D. Allen	1860–'61
Key West (Magnetic Observa'y.)	G. F. Ferguson, and J. G. Oltmanns.	1861–'62
Knox Hill	John Newton	1852–'53
Lake City	Edward R. Ives	1859–'60
		1866–'68
Lake City	Galen M. Fisher	1867
Lake City	Rev. W. W. Keep	1868
Micanopy	Dr. James B. Bean	1858–'60
Orange Hills	John Newton	1854
Pensacola	U. S. Navy Yard	1849
		1857–'60
Pensacola	J. Pearson, U. S. N.	1851–'54
Pensacola	J. Pearson and Lieut. Joseph Fry.	1855
Pensacola	Lieut. Joseph Fry	1856
Pensacola	Lieuts. Jos. Fry and J. W. Hester.	1857
Pensacola	Lieut. J. W. Hester	1858
Port Orange	J. M. Hawks, M. D.	1867–'68
St. Augustine	Dr. John E. Peck	1849
St. Augustine	P. B. Maurau, M. D.	1856–'60
Tallahassee	Benj. F. Whitner	1859–'61
Tallahassee	W. S. Bogert	1852
Tallahassee	Lardner Gibbon	1859–'60
Uchee Anna	John Newton	1849
Warrington	Thayer Abert	1859–'60
GEORGIA.		
Athens	Prof. John D. Easter	1857–'59
Atlanta	J. G. Westmoreland	1859–'60
Atlanta	Fred. Deekner & Son	1865–'68
Augusta	William Haines	1854–'57
Augusta	William Schley	1854
Augusta	Wm. H. Doughty, M. D	1858–'60
Boston	Rev. W. Blewitt	1865–'68
Clarksville	Jarvis Van Buren	1859–'61
Clarksville	Col. J. R. Stanford	1859
Covington	Benjamin F. Camp	1859–'61
Culloden	John Darby	1852–'53
Cuthbert	Charles C. Seavey	1860
Dalton	J. R. McAfee	1861
Darien	Charles Grant	1849
Factory Mills	F. T. Simpson	1857
Hillsboro'	Eli S. Glover	1857–'58
Macon	Miss L. J. Whitney	1868
Macon	John A. Rockwell	1868
Macon	J. F. Adams	1868
Madison	Prof. Wm. D. Williams	1854
Milledgeville	J. M. Cotting	1849
Milledgeville	Prof. C. W. Lane	1849
Penfield	Prof. J. E. Willet	1852
Perry	Dr. Geo. F. Cooper	1851–'52
Philomath	James M. Reed	1857

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List of Smithsonian meteorological stations and observers.—Continued.

Name of station.	Name of observer.	Years of observations.
GEORGIA—Con'd.		
Powellton	P. C. Pendleton	1852
Savannah	* Dr. John F. Posey	1852–'59
Savannah	R. T. Gibson	1859–'61
Sparta	Dr E. M. Pendleton.	1852–'61
Summerville	Stephen Elliott Hubersham.	1868
The Rock	Dr. James Anderson.	1855–'60
Thomasville	Rev. W. Blewitt	1860
Thomson	Dr. W. T. Grant	1858–'59
Whitemarsh Island	R. T. Gibson	1849–'58
Zebulon	Mrs. J. T. Arnold	1857–'59
IDAHO.		
Cantonment Jordan	W. W. Johnson	1859
Fort Benton	M. C. Rossenn	1863
Fort Halleck	J. H. Flufrock	1864
Fort Laramie	Col. W O. Collins	1863–'64
Fort Laramie	A. F. Ziegler, M. D	1865
ILLINOIS.		
Albany	Warren Olds	1861–'62
Albion	Edgar P. Thompson	1857
Alton	S. Y. McMasters	1849
Alton	Norton Johnson	1849
Andalusia	E. H. Bowman, M. D.	1866–'68
Athens	Joel Hall	1851–'58
Augusta	Dr. S. B. Mead	1849–'50 1851–'68
Aurora	* Andrew J. Babcock	1857–'61
Aurora	Abiram Spaulding	1865–'68
Batavia	Prof. Wm. Coffin	1853–'54
Batavia	* Thomp'n Mead, M. D	1857–'61
Batavia	E. Capen	1858–'59
Batavia	Frank Crandon	1861–'62
Belleville	N. T. Baker	1860–'63
Belleville	Dr. John J. Patrick	1861
Belleville	Dr. J. J. Patrick and N. T. Baker.	1862
Belvidere	G. B. Moss	1868
Bloomington	Jesse Allison	1859–'61
Brighton	Wm. V. Eldridge	1855–'58
Carbon Cliff	Mrs. Wm. S. Thomas.	1859
Carthage	Samuel J. Wallace	1857
Carthage	Mrs. E. M. A. Bell, & Sam'l J. Wallace.	1859
Centralia	H. A. Schnuber	1865
Channahan	Rev. D. H. Sherman.	1860
Channahan	Dr. Jos. Fitch	1861
Chicago	Henry Talcott	1851
Chicago	G. D. Hiscox	1856–'57
Chicago	Samuel Brookes	1859–'68
Chicago	M. C. Armstrong and J. H. Roe.	1860–'61
Chicago	Gustave A. Boettner.	1860–'61 1861
Chicago	A. M. Byrne, J. H. Roe, and others.	1862
Chicago	John O'Donoghoe	1862
Chicago	Arthur M. Byrne	1863–'64
Chicago	Isaac A. Pool	1866
Chicago	John G. Langguth, jr.	1867–'68
Clinton	C. H. Moore	1864–'66
De Kalb	John D. Parker	1866
Dixon	J. Thos. Little	1859–'63 1867
Dongoin	Ralph E. Meeker	1861–'62
Dubois	Wm. C. Spencer	1865–'68
Du Quoin	C. Ziegler	1864
Edgar county	J. W. Brown	1858
Edgington	Dr. E. H. Bowman	1857–'61
Elgin	Jno. B. Newcomb	1858–'61
Elmira	Orestes A. Blanchard.	1862–'63 1865–'68
Elmore	W. H. Adams	1864–'68
Evanston	* H. G. Meacham	1858
Evanston	Chas. E. Smith	1859–'60
Evanston	A. D. Langworthy	1864
ILLINOIS—Con'd.		
Evanston	* W. H. Morrison	1864
Evanston	H. W. Scovill	1864
Evanston	Jos. H. Gill and others	1865
Evanston	Fred. J. Huse	1866–'67
Evanston	Prof. Oliver Marcy	1866
Farmbridge	Elmer Baldwin	1860
Fremont Centre	Isaac H. Smith	1857–'58
Galesburg	Emil Hanser	1859–'60
Galesburg	Prof. Wm. Livingston	1861–'68
Golconda	Rev. Wm. V. Eldridge	1866–'68
Granville	L. G. Edgerly	1854
Granville	J. L. Jenkins	1857
Hazel Dell	Henry Gilfling	1863–'65
Hennepin	Smiley Sheppard	1868
Highland	A. F. Baudelier, jr	1860–'64
Hillsboro	John S. Titcomb	1858
Hoylton	J. Ellsworth	1864–'65
Hoylton	O. J. Marsh	1866
Jacksonville	Prof. Wm. Coffin	1849
Jacksonville	Timothy Dudley	1858 1861–'64
Lacon	A. H. Thompson	1867
Lebanon	Prof. N. E. Cobleigh.	1859–'61
Loamml	Timothy Dudley	1867–'68
Magnolia	Henry K. Smith	1866–'68
Manchester	John Grant	1854–'61
Manchester	John Grant and Miss Ellen Grant.	1862–'65
Manchester	John & C. W. Grant.	1866–'68
Marengo	O. P. Rogers	1856–'58 1868
Marengo	O. P. & J. S. Rogers	1859–'63 1865–'66
Marengo	F. Rogers	1868
Monroe	Silas Meacham	1849
Mount Sterling	Rev. Alex. Duncan	1866–'68
Naperville	Lewis Ellsworth	1859
Naperville	Milton S. Ellsworth	1859–'60
Newton	Rev. Wm. V. Eldridge	1859
North Prairie	C. H. Bryant	1862
Olney	Rev. H. H. Brickensteln.	1860
Osceola	J. S. Pashley, M. D.	1860–'61
Ottawa	Dr. J. O. Harris	1852–'61
Ottawa	Geo. O. Smith, M. D.	1859–'60
Ottawa	Samuel L. Shotwell	1860
Ottawa	Mrs. Emily H. Merwin.	1862–'68
Paris	C. Leving	1868
Pekin	J. H. Riblet	1857–'65
Peoria	Dr. Fred. Brendel	1855–'68
Peoria	M. A. Breed	1861–'62
Plymouth	Dr. J. B. N. Kliager.	1852
Quincy	Rev. G. B. Giddings	1849
Ridge Farm, Vermilion county.	B. C. Williams	1868
Riley	E. Babcock	1856–'67
Robinson's Mills	E. Brendel, M. D	1860
Rochelle, (Alta)	Daniel Carey	1866–'68
Rockford	William Holt	1849
Sandwich	N. E. Ballou, M. D	1859–'68
South Pass	Frank Baker	1857–'58
South Pass	S. C. Spaulding	1862–'66
South Pass	H. C. Freeman	1867–'68
Springfield	Geo. W. Brinkerhoff	1865–'68
Tiskilwa	Verry Aldrich	1859–'68
Upper Alton	Prof. P. P. Brown	1851–'52
Upper Alton	* Dr. John James	1853–'59
Upper Alton	Anna James	1857
Upper Alton	Mrs. Anna C. Tribble	1861–'64
Wapella	T. Louis Groff	1868
Warsaw	Benj. Whitaker	1855–'58
Waterloo	H. Kunster	1865 1867–'68
Waukegan	Dr. Wm. Joslyn	1849
Waverley	Timothy Dudley	1865–'66
Waynesville	Joshua E. Cantril	1858–'59
West Salem	Henry A. Titze	1855–'60
West Urbana	John Swain, M. D	1857–'59
Wheaton	Prof. Geo. H. Collier	1858–61

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
ILLINOIS—Con'd.		
Willow Creek	E. E. Bacon	1859–'63
Willow Hill	Henry Griffing	1862
Winnebago Depot	J. W. Tolman	1858–'68
Woodstock	Geo. R. Bassett	1859–'61
Wynnet	E. S. Phelps	1864
Wyanet	E. S. Phelps and Miss L. E. Phelps.	1865–'68
York Neck	V. P. Gay	1864–'65
INDIANA.		
Aurora	Geo. Sutton, M. D.	1859
		1866–'68
Balbec	Miriam Griest	1865–'66
Bloomingdale	Wm. H. Hobbs	1864
Bloomingdale	Miss M. A. Hobbs	1865
Bloomington	Prof. C. M. Dodd, assisted by T. H. Mallow and others.	1868
Cadiz	Wm. Dawson	1854–'63
Cannelton	Hamilton Smith, jr	1856–'61
Carthage	Charles M. Hobbs	1868
Columbia	Dr. F. McCoy and Miss Lizzie McCoy.	1865–'68
Evansville	John F. Crisp	1857–'58
Fort Wayne	Prof. A. C. Huestis	1849
Fort Wayne	Miss G. Webb	1860–'61
Greencastle	Prof. Jos. Tingley	1851–'54
Greencastle	Wm. H. Larrabee	1859–'63
Indianapolis	Royal Mayhew	1861–'65
Indianapolis	W. W. Butterfield	1864–'65
Indianapolis	W. W. Butterfield and Mrs. Butterfield.	1866–'67
Indianapolis	W. J. Elstun	1867–'68
Jalapa	Albert C. Irwin	1868
Kendallville	W. B. Coventry	1854
Kendallville	J. Knauer	1854
Knightstown	D. Deem	1868
Lafayette	A. H. Bixby	1854
Lafayette	H. Peters	1854
Lafayette	Isaac E. Windle	1865
Laporte	R. M. Newkirk	1849
Leo	W. W. Spratt, M. D.	1861
Logansport	Charles B. Laselle	1857–'58
Logansport	Isaac Bartlett	1859–'61
Logansport	Thos. B. Helm	1863
Madison	C. Barnes	1854
Madison	Rev. Samuel Collins	1864–'66
Madison	Oliver Malvey	1865
Merom	Thomas Holmes	1866–'68
Michigan City	C. S. Woodard	1857–'58
Michigan City	W. Woodbridge, B. D. Angell, and H. Binke.	1859–'60
Milton	Dr. V. Kersey	1853–'55
Mishawaka	Geo. C. Manfield	1859
Muncie	E. J. Rice	1863–'64
Muncie	G. W. H. Kemper	1866–'68
New Albany	C. Barnes	1855–'58
New Albany	Dr. Alex. Martin	1859
New Albany	Dr. E. S. Crozier	1863–'65
New Castle	Prof. Jos. Tingley	1849
New Castle	Thos. B. Redding	1863–'65
New Garden	D. H. Roberts	1854
New Harmony	John Chappelsmith	1852–'68
New Harmony	Dr. D. D. Owen	1849–'51
		1867
Newport	Daniel H. Roberts	1851
Putnam	A. P. Turner	1859
Pennville	John Griest	1864
Rensselaer	J. H. Longbridge, M. D	1864–'65
		1867–'68
Richmond	Dr. Jas. T. Plummer	1849, '51
Richmond	W. W. Austin	1851–'55
		1859–'61
Richmond	Joseph Moore	1855–'59
Richmond	John Haines	1859–'63
Richmond	Edward B. Rambo	1862–'63
Richmond	John Valentine	1865–'68
INDIANA—Con'd.		
Rockville	H. H. Anderson	1859–'66
Rockville	J. W. Tenbrock	1859
Shelbyville	J. T. Bullock	1859–'62
South Bend	Prof. Gardner Jones	1851
South Bend, (Notre Dame University.)	Prof. Thos. Vagnier	1858–'59
South Bend	Miss G. Webb	1859
South Bend	James H. Dayton	1860–'63
South Bend	Reuben Barroughs	1863–'65
South Hanover	Prof. S. H. Thomson	1849
Spiceland	Wm. Dawson	1863–'68
Vevay	Charles G. Boerner	1864–'68
Walnut Hills	W. W. Austin	1849
INDIAN TERRITORY.		
Armstrong Acade'y	Prof. A. G. Moffatt	1849
Doaksville	P. P. Brown	1849
Taleqnah	T. B. Van Horne	1849
IOWA.		
Algoaa	F. McCoy, M. D	1860
Algona	F. McCoy and Miss Elizabeth McCoy.	1861–'65
Algona	Philip Dorweiler	1866–'68
Algona	James H. Warren	1867–'68
Atalissa	B. Carpenter	1867
Bangor	Isaac M. Gidley	1861–'63
Bellevue	John C. Forey	1856–'60
Boonsboro	E. Babcock	1867–'68
Border Plains	G. C. and W. K. Goss	1856
Border Plains	Wm. K. Goss	1857–'59
Bowen's Prairie	Samuel Woodworth	1868
Burlington	John M. Corse	1859–'60
Burlington	Louisa P. Love	1866–'68
Burlington	Mrs. James Love	1868
Ceres	John M. Hagensick	1865–'68
Clariada	S. H. Kridelbaugh, M. D.	1865–'66
Clinton	Nathan H. Parker	1856–'58
Clinton	P. J. Farnsworth	1866–'68
Dakota	Wm. O. Atkinson	1867–'68
Davenport	Nathan H. Parker	1858
Davenport	A. J. Finley	1859
Davenport	H. S. Finley	1859
Davenport	H. S. Finley and W. P. Dunwoody.	1860
Davenport	J. Chamberlain, W. P. Dunwoody, H. H. Belfield.	1861
Davenport	Dr. Ignatius Langer	1861
Davenport	H. H. Belfield and W. P. Dunwoody.	1862
Davenport	J. Chamberlain and W. P. Dunwoody.	1863
Davenport	J. Chamberlain	1864
Davenport	Geo. B. Pratt	1865
Davenport	G. B. Pratt and Sydney Smith.	1866
Davenport	D. S. Sheldon	1867–'68
Des Moines	Rev. J. A. Nash	1865–'67
Dubuque	Dr. Asa Horr	1851–'55
		1857–'68
Dubuque, (Alexander College.)	Rev. Joshua Phelps	1854
Dubuque	Dr. W. W. Woolsey	1856
Fairbanks	Dexter Beal	1856
Fairfield	J. M. Shaffer	1856–'60
Fairfield	Miss Sue McBoth	1859
Fayette	John M. McKenzie	1859–'60
Fontanelle	A. F. Bryant	1866–'68
Forrestville	Daniel Sheldon	1859–'63
Fort Madison	Daniel McCrendy	1852, '54
		1855–'68
Franklin	Dexter Beal and W. W. Beal.	1857
Franklin	Dexter Beal	1858

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
IOWA—Continued.		
Fort Dodge	C. N. Jorgenson	1867–'68
Grove Hill	Dexter Beal	1859–'60
Grove Hill	Dexter Beal and W. W. Beal.	1861
Grove Hill	Mrs. Celia Beal	1862
Guttenburg	Philip Dorweller	1864–'66
Guttenburg	James P. Dickinson	1866–'68
Harris Grove	Jacob F. Stern	1866–'68
Hesper	H. B. Williams	1860–'61
Independence	D. S. Deering	1861–'67
Independence	Alex. Camp Wheaton	1862–'66
Independence	Mrs. D. D. Wheaton	1866–'68
Independence	Geo. Warne, M. D.	1867–'68
Iowa City	Hermann H. Fairall	1856
Iowa City	W. Reynolds	1857–'58
Iowa City	Prof. Theo. S. Parvin	1861–'68
Iowa Falls	Nathan Townsend	1863–'68
Keokuk	Miss Ida E. Ball	1851–'54
Keokuk	Dr. J. E. Ball	1853
Keokuk	Prof. K. M. Taylor	1866
Kossuth	Wm. P. Leonard	1862
Kossuth	Isaiah Reed	1860–'61
Lyons	A. T. Hudson, M. D	1859–'67
Lyons	P. J. Farnsworth	1862–'65
Lyons	Dr. J. Messmun	1866
Manchester	* Allen Mead	1865–'66
Maquoketa	Edward F. Hobart	1857
Marble Rock	H. Wadey	1867–'68
Monticello	Chauncey Mead	1864–'66
Monticello	M. M. Moulton	1866–'68
Mount Pleasant	E. L. Briggs	1863–'64
Mount Vernon	Prof. B. Wilson Smith	1857
Mount Vernon	Prof. Alonzo Collins	1860–'68
Muscatine	T. S. Parvin	1849–'50 1851–'52 1855–'59
Muscatine	P. G. Parvin	1853–'54
Muscatine	Snel Foster	1860–'64
Muscatine	T. S. Parvin and Rev. John Ufford.	1860
Muscatine	Rev. John Ufford	1861–'62
Muscatine	Josiah P. Walton	1863–'68
Onowa	Richard Stebbins	1864
Osage	Rev. Alva Bush	1866–'67
Pella	E. H. A. Scheeper	1854–'56
Pleasant Plain	Townsend McConnell	1855–'65
Pleasant Spring	Rev. B. F. Odell	1858
Plum Spring	B. F. Odell and Miss Mary G. Odell.	1855
Plum Spring	Rev. B. F. Odell	1859
Poultney	Dr. B. F. Odell	1853–'54
Quasqueton	Dr. E. C. Bidwell	1853–'56
Rolfe	Oscar I. Strong	1868
Rossville	Carlisle D. Beaman	1857–'59
Sioux City	Dr. J. J Saville	1857–'58
Sioux City	A. J. Millard	1861–'63
St. Mary's	D. E. Read	1853
Vernon Springs	Gregory Marshall	1861–'63
Washington	C. R. Boyle	1861
Waterloo	L. H. Doyle	1859–'64
Waterloo	T. Steed	1864–'68
Whitesboro	David K. Witter	1867–'68
KANSAS.		
Atchison	Dr. H. B. Horn and Miss Clotilde Horn.	1865–'68
Avon	Allen Crocker	1866
Baxter Springs	Ingraham & Hyland	1867–'68
Burlingame	* Lucian Fish	1859–'61
Cayuga	Wm. H. Gilman	1858
Celestville	Rev. J. H. Drummond	1859–'60
Council City	Edmund Fish	1857–'58
Council Grove	A. Woodworth, M. D	1865–'68
Emporia	C. F. Oakfield	1862
Fort Riley	Rev. David Clarkson	1859–'60
Fort Riley	Dr. Fred. P. Drew, U. S. A.	1862–'64
Fort Riley	Post Surgeon	1865
KANSAS—Con'd.		
Fort Riley	J. M. Shaffer and E. P. Camp.	1866
Gardner	G. F. Merriam	1860
Gardner	James Scott	1861–'62
Holton	Dr. James Walters	1867–'68
Junction City	E. W. Seymour, M. D.	1862
Lawrence	G. W. Brown	1857–'59
Lawrence	W. J. R. Blackman	1860–'61
Lawrence	A. N. Fuller	1862–'64
Lawrence	W. L. G. Soule	1863–'64
Lawrence	Geo. W. Hollingworth	1867
Lawrence	Prof. F. H. Snow	1868
Leavenworth	H. D. McCarty	1857–'59 1868
Leavenworth	E. L. Berthoud	1858–'60
Leavenworth	M. Shaw	1861–'62
Leavenworth	Dr. J. Stayman	1866–'68
Leavenworth	T. B. Stowell	1868
Lecompton	Dr. Wm. T. Ellis	1859–'60
Lecompton	Wm. A. McCormick	1860–'61
Lecompton	David G. Bacon	1866
Leroy	J. G. Shoemaker	1867
Manhattan	Isaac T. Goodnow	1857–'62
Manhattan	Rev. N. O. Preston	1859–'60
Manhattan	I. T. Goodnow and H. L. Denison.	1863
Manhattan	Henry L. Denison	1864
Manhattan	Agricultural College, (B. F. Mudge, and and others.)	1865–'68
Mapleton	S. O. Himoe, M. D	1857–'58
Moneka	J. O. Wattles and Celestia Wattles.	1859
Neosho Falls	B. F. Goss	1859–'61
Neosho Falls	Mrs. E. W. Groesbeck	1868
Olatha	W. Beckwith	1864–'68
Ridgeway	O. H. Brown	1863
Topeka	F. W. Giles	1858
Wyandot	John H. Millar	1859–'60
KENTUCKY.		
Ballardsville	Dr. John Swain	1853–'56 1860–'62
Bardstown	*John H. Lunemann	1858
Bardstown	J. H. Lunemann and Thos. H. Miles.	1859
Bardstown	Thos. H. Miles	1860–'61
Beech Fork	Dr. C. D. Case	1860
Bowling Green	J. E. Younglove	1849–'50 1851–'52
Bowling Green	F. C. Herrick	1852
Chilesburg	Dr. Samuel D. Martin	1865–'68
Clinton	Rev. T. H. Cleland	1868
Danville	O. Beatty	1853–'62 1865–'68
Danville	R. H. Caldwell	1864
Drennon Springs	Prof. S. Y. McMasters	1851
Hardinsburg	Mrs. Mary A. Walker and J. C. Barbage.	1859
Hardinsburg	Joshua C. Barbage	1860–'61
Lexington	J. D. Shane	1854
Lexington	Rev. S. R. Williams	1859 1867–'68
Loudon	W. S. Doak	1865–'66
Louisville	Rev. S. R. Williams	1858–'59
Louisville	E. N. Woodruff	1860–'63
Maysville	E. L. Berthoud	1852–'54
Millersburg	Rev. J. Miller	1851
Millersburg	Rev. J. Miller, Rev. G. S. Savage.	1854
Millersburg	Dr. Geo. S. Savage	1855–'62
Newport	Prof. M. G. Williams	1861
Nicholasville	Jos. McD. Matthews, D. D.	1861–'63
Nolin	J. Grinnell	1858
Paducah	Andrew Mattison	1859–'62
Paris	L. G. Ray	1854–'59
Pleasant Valley	A. H. Bixby	1853

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
KENTUCKY—Con'd.		
Prospect Hill	O. Beatty	1849–'51
Russellville	E. M. Murch	1860
Springdale, (near Louisville.)	Mrs. L. Young	1849–'50 1851–'55 1857–'68
Taylorsville	H. C. Mathis	1866
LOUISIANA.		
Benton	J. H. Carter	1867–'68
Falls River	A. W. Jackson, M. D.	1859
Grand Coteau	B. F. Anthonios	1860
Independence	Col. C. B. Swasey	1859
Independence	Mrs. M. J. Mankurd	1860
Jackson	Prof. W. P. Riddell	1854
New Orleans	* Dr. E. H. Barton	1849, '50 1851–'57
New Orleans	Lewis B. Taylor	1856–'57 1859, '61
New Orleans	Dr. S. P. Moore, U. S. A.	1860
New Orleans	Harrison Thompson	1861
New Orleans	Robert W. Foster	1867–'68
New Orleans	E. L. Raulett	1868
St. Francisville	B. R. Gifford	1856
Trinity	A. R. Kilpatrick, M. D	1856–'59
Trinity	Edward Merrill, M. D.	1856–'58 1860
Vidalia plantation	Rev. A. K. Teele	1867
MAINE.		
Bangor	Stephen Gilman	1849
Bangor	C. L. Nichols	1859–'60
Belfast	G. Emerson Brackett	1859–'64
Bethel	Rev. A. G. Gaines	1861–'62
Biddeford	J. G. Garland	1849–'50 1851–'53
Biddeford	F. A. Small	1854
Blue Hill	Rev. S. H. Merrill	1854–'55
Blue Hill	H. H. Osgood	1864
Brunswick	*Prof. Parker Clevelland.	1849–'59
Bucksport	Rufus Buck	1849–'50 1851–'52
Carmel	J. J. Bell	1853–'57
Castine	Dr. J. L. Stevens	1851
Cornish	G. W. Guptill	1855–'68
Cornish	Silas West	1857–'68
Dexter	B. F. Wilbur	1860–'63
East Exeter	Stephen Gilman	1858
East Wilton	Henry Reynolds, and Lauriston Reynolds.	1861–'63
Exeter	Dr. J. B. Wilson	1860–'61
Foxcroft	M. Pitman	1863–'64
Freedom	E. A. Buller	1859
Fryeburg	G. B. Barrows	1849–'56
Gardiner	* Hon. R. H. Gardiner.	1855–'64
Gardiner	Rev. F. Gardiner	1864
Gardiner	Rev. F. and R. H. Gardiner.	1865
Gardiner	R. H. Gardiner	1866–'68
Hartland	E. E. Brown, S. W. Hall, L. S. Strickland, and others.	1859
Hiram	Peleg Wadsworth	1849–'64
Houlton	Milton Welch	1849
Lee	Benj. H. Towle	1866–'67
Lee	E. Pitman	1864–'66
Limington	W. G. Lord	1859–'61
Lisbon	Asa P. Moore	1859–'68
Monson	B. F. Wilbur	1856–'59
Newcastle	C. L. Nichols	1859
New Sharon	J. F. Pratt, M. D	1860–'62
North Belgrade	A. H. Wyman	1859–'60
North Bridgeton	M. Gould	1860–'61
North Prospect	Virgil G. Eaton	1867
Norway	G. W. Verrill, jr	1859–'61
MAINE—Con'd.		
Oldtown	Rev. S. H. Merrill	1849–'50 1851–'53
Oxford	Howard D. Smith	1868
Patten	S. Eveleth	1849
Pembroke	Rev. E. Dewhurst	1862
Perry	William D. Dana	1853–'65
Portland	Henry Willis	1855–'60
Portland	John W. Adams	1859–'61
Ramford Point	Waldo Pettingill	1866–'68
Sebec	Edwin Pitman	1864
South Thomaston	Joshua Bartlett	1853–'54
Standish	John P. Moulton	1865–'68
Steuben	J. D. Parker	1849–'50 1851–'68
Thomaston	George Prince and Chr. Prince.	1849–'50 1851–'52
Topsham	Warren Johnson	1859–'61
Vassalboro	James Van Blarcom	1859–'63
Warren	Calvin Bickford	1859–'60
Webster	Almon Robinson	1865–'67
West Waterville	B. F. Wilbur	1863–'68
Whitehead	Joshua Bartlett	1849–'50 1851–'52
Williamsburg	Edwin Pitman	1863, '66
Williamsburg	E. Pitman	1867–'68
Wyndham	Samuel A. Eveleth	1849–'50 1851–'56
MARYLAND.		
Agricult'l College, Prince George Co.	Montg. Johns, M. D	1861–'62
Annapolis	Prof. W. F. Hopkins	1851
Annapolis	A. Zumbrock, M. D	1855–'56
Annapolis	W. R. Goodman	1856–'68
Baltimore	Dr. Lewis F. Steiner	1852–'53
Baltimore	Prof. Alfred M. Mayer	1857–'59
Bladensburg	Benj. O. Lowndes	1854–'64
Catonsville	George S. Grape	1865–'67
Chestertown	James A. Pearce, jr	1855–'57
Chestertown	Prof. A. W. Clark	1858
Chestertown	Rev. A. Sutton	1859–'60
Chestertown	Prof. J. Russell Dutton.	1861–'64
Cumberland	T. C. Atkinson	1849
Ellicott's Mills	Philip Tabb	1864
Emmittsburg	Eli Smith	1866–'68
Emmittsburg	Prof. C. H. Jourdan	1867–'68
Frederick	Dr. Lewis F. Steiner	1851
Frederick	Henry E. Hanshew	1852–'54 1856–'63
Frederick	Miss H. M. Baer	1865–'66
Hagerstown	Rev. J. P. Carter	1852, '54
Leitersburg	Lewis J. Bell	1852
Leitersburg	Jacob E. Bell	1858–'62
Leonardtown	Dr. Alex. McWilliams.	1858–'59
New Windsor	Prof. J. P. Nelson	1852
New Windsor	Prof. J. F. Maguire	1854
Nottingham	A. P. Dalrymple	1849
Oakland	L. R. Cofran	1857–'58
Port Deposit	Henry W. Thorp	1849
Ridge	T. G. Stagg	1856–'57
Sandy Hill	Isaac Bond	1849
Sykesville	Prof. William Baer	1849–'50 1851–'52
Sykesville	Prof. Wm. Baer and Miss H. M. Baer.	1853–'54
Sykesville	Miss H. M. Baer	1855–'65
St. Inigoes	Rev. Jas. Stephenson	1859–'68
Union Bridge	Warrington Gillingham.	1864
Walkersville	Josiah Jones	1849–'51
Woodlawn	James O. McCormick	1865–'68
MASSACHUSETTS.		
Amherst	Prof. E. S. Snell	1849–'68
Baldwinsville	Rev. E. Dewhurst	1863–'65
Barnstable	B. R. Gifford	1852–'53

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List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
MASS.—Continued.		
Boston	E. L. Smith	1857
Boston	E. L. Adams	1859
Bridgewater	Marshal Conant	1854
Bridgewater	L. A. Darling	1856–'57
Bridgewater	C. W. Felt and others	1858–'59
Bridgewater	Normal School	1860–'61
Brookline	Rev. John B. Perry	1868
Byfield	Martin N. Root	1851
Cambridge	* W. C. Bond	1855–'58
Cambridge	Harvard College Observatory.	1859–'60
Cambridge	Augustus Fendler	1865–'66
Canton	D. H. Ellis	1857–'58
Chelsea	Naval Hospital	1861–'64
Clinton	Geo. M. Morse, M. D.	1860–'61
Danvers	A. W. Mack	1858–'59
Duxbury	James Ritchie	1849
Fall River	Charles C. Terry	1861
Fitchburg	George Raymond	1860–'61
Florida	L. F. Whitcomb	1857–'61
Framingham	Gustavus A. Hyde	1849
Georgetown	Henry M. Nelson	1865–'67
Georgetown	S. Augustus Nelson	1867–'68
Gratton	Rev. Wm. G. Scandlin.	1860–'61
Hinsdale	Rev. E. Dewhurst	1868
Kingston	Guilford S. Newcomb.	1866–'68
Lawrence	John Fullon	1857–'68
Lowell	Charles J. Gilliss	1849–'51
Lunenburg	Geo. A. Cunningham.	1866–'68
Lynn	Jacob Bachelder	1849–'50
		1851–'52
Mendon	Henry Rice	1849
Mendon	Dr. John G. Metcalf	1849–'68
Milton	Rev. A. K. Teele	1867–'68
Nantucket	Hon. Wm. Mitchell	1853–'61
New Bedford	Thomas Bailey	1849, '51
New Bedford	Samuel Rodman	1853–'68
New Bedford	Edward T. Tucker	1866–'67
Newbury	John H. Caldwell	1865–'68
Newburyport	Dr. H. C. Perkins	1853–'58
North Attleboro'	Henry Rice	1851–'58
North Billerica	Rev. Elias Nason	1866–'68
Plainfield	Francis Shaw	1857
Princeton	Hon. John Brooks	1853–'57
Randolph	Orria A. Reynolds	1861–'62
Richmond	William Bacon	1849–'50
		1851–'63
		1865–'68
Rockport	R. D. Massey	1854
Roxbury	Benjamin Kent	1849
Sandwich	N. Barrows, M. D	1863–'65
South Groton	Alfred Collin	1859
Southwick	Amasa Holcomb	1849–'57
Springfield	Lucius C. Allis	1853–'56
Springfield	Francis A. Brewer	1859
Stockbridge	Abraham S. Peet	1849
Taunton	Albert Schlegel	1854–'57
Topsfield	Nathan W. Brown	1860–'62
Topsfield	John H. Caldwell	1863–'64
Topsfield	Arthur M. Morriam	1864–'66
Topsfield	Sidney A. Merriam	1866–'68
Uxbridge	Dr. James Robbins	1854
West Dennis	Eugene Tappan	1864
Westfield	* Rev. Dr. E. Davis	1854–'66
West Newton	John H. Bixby	1867–'68
Weymouth	Dr. N. Q. Tirrell	1856–'57
		1859
Williamstown	C. M. Freeman	1851–'52
Williamstown	Prof. P. A. Chadbourne	1854
Williamstown	D. J. Holmes, Jas. Orton, Lavallette Wilson, and others.	1854–'57
Williamstown	I. McGee, C. J. Lyons, M. L. Berger & others.	1857–'59
Williamstown	Astronomical Obsev'y.	1860–'68
Williamstown	Prof. Albert Hopkins.	1868
Wood's Hole	B. R. Gifford	1854–'55
Worcester	S. F. Haven	1849–'52
MASS.—Continued.		
Worcester	Drs. Ed. A. Smith, F. H. Rice, and others.	1853–'56
		1865
Worcester	Dr. Geo. Chandler	1854
Worcester	John S. Sargent and others.	1857–'58
Worcester	Dr. H. C. Prentiss	1859–'64
Worcester	Joseph Draper, M. D.	1866–'68
MICHIGAN.		
Alpena	J. W. Paxton	1865–'68
Ann Arbor	Dr. H. R. Schetterly	1852
Ann Arbor	L. Woodruff	1852–'54
		1856–'57
Ann Arbor	Prof. A. Winchell	1854
		1856–'57
Ann Arbor	L. Woodruff and A. Winchell.	1855
Battle Creek	Dr. W. M. Campbell.	1849–'60
Brest	Dr. Thos. Whelpley	1848–'54
Brooklyn	Dr. M. K. Taylor	1852–'54
Burr Oak	Charles Betts	1849–'52
Central Mine	S. H. Whittlesey	1867–'68
Clifton	Wm. Van Orden, jr.	1862–'63
Clinton	Elmore Wainwright	1851–'52
Coldwater	N. C. Southworth	1868
Cooper	Mrs. Octavia C. Walker.	1854–'58
		1860–'62
Copper Falls	Chas. S. Whittlesey	1856–'57
Cornuna	Heber Crane	1855
Detroit	Wm. A. Raymond	1849
Detroit	*Rev. Geo. Duffield	1849–'56
Detroit	Dr. Zena Pitcher and L. S. Horton.	1858–'60
Detroit	U. S. Engineers	1860–'63
Detroit	Dr. Zena Pitcher	1861–'62
Eagle River	Mrs. M. A. Goff	1856
East Saginaw	Dr. S. F. Mitchell	1854
Flint	Dr. D. Clark	1854–'55
Forestville	Lieut. C. N. Turnbull.	1858
Fort Gratiot	Lieut. C. N. Turnbull, U. S. A.	1858–'59
Garlick	Edwin Ellis, M. D	1864
Grand Haven	Heber Squier	1859–'63
Grand Rapids	Franklin Everett	1849
Grand Rapids	Dr. J. Hollister	1849–'51
Grand Rapids	Alfred O. Currier	1854–'58
Grand Rapids	L. H. Streng	1857–'60
Grand Rapids	Edwin A. Strong	1860–'61
Grand Rapids	J. B. Parker	1864
Grand Rapids	E. S. Holmes	1865–'68
Grand Traverse	H. R. Schetterly	1854
Holland	L. H. Streng	1860–'63
		1865–'68
Homestead	George E. Steele	1864–'67
Houghton	J. B. Minick	1865–'66
Howell	Dr. H. R. Schetterly	1849–'50
		1851–'52
Kalamazoo	Harmon M. Smith	1864–'67
Kalamazoo	Milton Chase	1865–'67
Kalamazoo	Frank Little	1868
Lake George	J. H. Foster and Edward Perrault	1859
Lansing	Cleveland Abbe	1859
Lansing	J. C. Holmes	1859
Lansing	Prof. R. C. Kedzie	1863–'68
Litchfield	R. Bullard	1865–'68
Lower Saginaw	James G. Birney	1849
Manchester	F. M. Reasner, M. D.	1864
Marquette	Peter White	1857
Marquette	Dr. G. H. Blaker, jr.	1858–'61
Marquette	Dr. G. H. Blaker, jr., and F. M. Bacon.	1862–'63
Mill Point	Rev. L. M. S. Smith	1860–'62
Monroe	Thomas Whelpley	1852
Monroe	Capt. A. D. Perkins	1854
Monroe	Miss H. I. Whelpley	1855–'60
Monroe	G. W. Bowlsby	1859–'61

List of Smithsonian meteorological stations and observers—Continued

Name of station.	Name of observer.	Years of observations.
MICHIGAN—Con'd.		
Monroe	Miss Helen I. and Florence Whelpley.	1861
Monroe	Miss F. E. Whelpley.	1862–'68
Monroe Piers	John Lane	1859–'63
Muskegon	H. A. Pattison	1868
New Buffalo	J. B. Crosby	1857–'62
Northport	H. R. Schetterley	1862–'63
Northport	Rev. Geo. N. Smith	1865–'68
Ontonagon	H. Selby	1859–'63
Ontonagon	Edwin Ellis, M. D.	1865–'68
Ottawa Point	John Oliver	1859–'61
Otsego	Matthew Coffin	1859–'62
Otsego	Milton Chase	1861
Oshtemo & elsew'e.	Henry H. Mapes	1864–'68
Pennsylvania Mine.	Richard H. Griffith	1868
Pleasanton	Joseph D. Millard	1868
Pontiac	James A. Weeks	1864
Port Huron	James Allen, jr.	1857–'59
Port Huron	Geo. A. Stockwell	1860
Redford Centre	Chas. C. Smith, M. D.	1861
Romeo	Isaac Stone	1855
Romeo	Seth L. and G. P. Andrews.	1856
Romeo	S. L. Andrews, M. D.	1855, '57
Saugatuck	L. H. Strong	1854–'56
St. James	James J. Strong	1853–'56
Sugar Island	U. S. Engineers	1863
Tawas City	U. S. Engineers	1861–'63
Thunder Bay	J. I. Malden	1859–'63
Ypsilanti	Miss G. Webb	1859
Ypsilanti	C. S. Woodward	1859–'63
MINNESOTA.		
Afton	Dr. B. F. Babcock	1865–'67
Beaver Bay	Thomas Clark	1858–'59
Beaver Bay	Henry Wieland	1859–'60
Beaver Bay	Thos. Clark and C. Wieland.	1860
Beaver Bay	C. Wieland	1861–'68
Bowles Creek	Andrew Stouffar	1865–'66
Buchanan	Stephen Walsh	1857–'58
Burlington	A. A. Hibbard	1858–'60
Cass Lake	Alonzo Barnard	1852
Cass Lake Mission	Rev. B. F. Odell	1856
Chatfield	T. F. Thickstun	1859–'61
Danville	Thomas A. Kellett	1868
Fond du Lac	Rev. Joseph W. Holt	1849–'51
Forest City	A. C. Smith	1859–'61
Forest City	Henry L. Smith	1862–'66
Fort Ripley	Rev. S. W. Manneey.	1854
Grand Portage	Richard Bardon	1867
Hastings	T. F. Thickstun	1861–'62
Hazelwood	S. R. Riggs	1855–'58
Hennepin county	J. B. Clough	1864–'65
Itasca	O. H. Kelley	1860–'61
		1863
Lac qui Parle	Rev. S. L. Riggs	1852–'53
Lac qui Parle	S. R. and A. L. Riggs.	1854
Lake Winnibigoshish.	Rev. Benj. F. Odell	1859
Lapham	E. M. Wright	1857
Lapham	J. F. McMullen and D. F. Shortwell.	1858
Lapham	Samuel Locke	1858
Mankato	Wm. Kilgora	1864
Minneapolis	Wm. Cheney	1864–'68
New Ulm	Charles Roos	1864–'68
Pajutazee	Rev. S. R. Riggs	1859–'62
Pembina	Charles Cavileer	1852
Princeton	O. E. Garrison	1856–'60
Princeton	S. M. Byers	1860
Red Lake	Rev. E. W. Carver	1853–'54
Red Wing	Rev. Jabez Brooks	1856
Red Wing	Prof. A. M. Stephens	1867
Sandy Lake	Samuel Spates	1852
Sauk Centre	Smith Bloomfield	1868
Sibley	C. W. Woodbury	1865–'67
Sibley	C. W. and C. E. Wood-	1868

Name of station.	Name of observer.	Years of observations.
MINNESOTA—Co'd.		
Smithfield	B. C. Livings	1868
Stillwater	A. Van Voorhies	1858
St. Anthony's Falls.	C. F. Anderson	1854
St. Cloud	O. E. Garrison	1861–'62
St. Joseph's	Rev. D. B. Spencer	1853–'55
St. Joseph's	A. O. Kollum	1854
St. Paul	Rev. A. B. Paterson, D. D.	1862–'68
St. Paul	John W. Helmstreet.	1866–'67
	bury.	
Tamarack	Mary A. Grave	1863–'64
Travers des Sioux	Rev. R. Hopkins	1849–'51
Wabashaw	Spencer L. Hillier	1857–'58
MISSISSIPPI.		
Brook Haven	T. J. R. Keenan	1867–'68
Columbus	James S. Lull	1855–'59
Como	E. W. Beckwith	1849
Fayette	Rev. T. H. Clelland	1866–'67
Gainesville	Charles A. Folsom	1849
Garlandsville	Rev. E. S. Robinson	1853–'55
Granville	James H. Vincent	1849
Grenada	Wm. Henry Waddell	1854
Grenada	Prof. Albert Moore	1859–'60
		1866–'68
Hernando	Wm. M. Johnston	1859–'60
Jackson	Thomas Oakley	1849–'52
Jackson	A. R. Green	1854
Kingston	J. Edward Smith	1866–'67
Marion	T. W. Florer, M. D.	1868
McLeod's	David Moore	1849
Monticello	J. R. Cribbs	1860–'61
Natchez	Geo. L. C. Davis	1849–'51
Natchez	J. Edward Smith	1856
Natchez	*R. McCary	1858–'61
		1864–'66
Natchez	W. McCary	1866–'68
Oxford	Prof. L. Harper	1854–'56
Pass Christian	Rev. J. A. Sheppard	1860
Paulding	Rev. E. S. Robinson	1858–'59
Port Gibson	Prof. J. Boyd Elliott	1855–'57
Prairie Line	Rev. E. S. Robinson	1859–'61
Vicksburg	A. L. Hatch	1849–'52
Westville	J. R. Cribbs	1859–'60
Yazoo City	Col. C. B. Swesey	1860–'61
MISSOURI.		
Allenton	Aug. Fendler	1865–'68
Athens	John T. Caldwell	1864–'66
Augustus	Conrad Mullinckrodt	1859
Bethany	D. J. Heaston	1859–'60
Bolivar	W. J. Vankirk	1859–'61
Bolivar	James A. Raeo	1868
Boonevilla	Norris Sutherland	1859–'61
Canton	George P. Ray	1861–'68
Canton	Dr. J. M. Parker	1868
Cape Girardeau	Rev. James Knoud	1856–'58
Carrollton	John Campbell	1859
Carrollton	S. J. Huffaker	1859
Carrollton	D. J. Kirby	1860
Cassville	M. L. Wyrick	1859–'61
Charleston	George Whitcomb	1868
Dry Ridge	O. H. P. Lear	1854–'55
Dundee	S. S. Bailey	1859–'61
Easton	P. B. Sibley	1864–'66
Edinburg	John E. Vertrees	1866–'67
Edina	J. C. Agnew	1859–'66
Emerson	W. B. Kizer	1859
Farmington	Nathan P. Force	1859
Fort Pierre	Fred. Behmer	1854
Greenfield	S. B. Bowles, M. D.	1859–'62
Greenville	O. D. Dalton	1859–'60
Hannibal	O. H. P. Lear	1853
Hannibal	Edw'd Duffield, M. D.	1855–'56
Harrisonville	John Christian	1859–'68
Hematito	John M. Smith	1868
Hermann	Philip Weber	1859–'60

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
MISSOURI—Cont'd.		
Hermitage	Miss Belle Moore	1867–'68
Hornersville	W. H. Horner	1859–'61
Jefferson City	Nicolas De Wyl	1868
Kirksville	Robert Byers, M. D.	1859
Kirksville	J. H. Myers	1859–'63
Laborville	William Muir	1863–'64
Lancaster	John M. Weatherford.	1859
Lexington	Joseph A. Wilson	1859
Lexington	Geo. W. Wilson, jr	1860
Lexington	P. S. Wilson	1861
Luray	B. P. Hanan	1859–'61
Oregon	William Kaucher	1867–'68
Paris	W. F. Maxey	1859–'62
Rhineland	Charles Vogel	1859–'60
Richmond	R. W. Finley	1859–'60
Rockport	C. Q. Chandler, M. D.	1855–'56
Rolla	Homer Ruggles	1867–'68
Springfield	J. A. Stephens	1857–'58
St. Joseph	Edward B. Neely	1857–'58
St. Louis	Dr. Geo. Engelmann.	1853–'57
		1859–'67
St. Louis	A. Wislizenus, M. D	1856–'57
St. Louis	G. Engelmann, M. D., and A. Wislizenus, M. D.	1858
St. Louis	Augustus Fendler	1859–'64
St. Louis	*J. H. Lunemann	1860–'62
		1864
St. Louis	Rev. P. W. Kouing	1861
St. Louis	Rev. F. H. Stuntebeck	1865–'68
St. Louis	Rev. I. Straetmans	1868
Stockton	Wm. Wells	1859–'61
Toronto	B. D. Dodson	1859–'60
Trenton	Thomas J. Conkling	1859
Tuscumbia	Wm. M. Lumpkin	1859
Union	Dr. W. Moore	1866
Union	Miss Belle Moore	1867
Warrensburg	Rev. J. E. Pollock	1868
Warrenton	Marion F. Hamaker	1859
Warrenton	Mary A. Tidswell	1859–'63
Waynesville	B. G. Lingow	1859
Westport	Rev. N. Scarritt	1851
MONTANA.		
Benton City	* Dr. H. M. Lehman	1868
Camp Cooke	* Dr. H. M. Lehman	1867
Cantonment Wright	T. Koleski	1861–'62
Helena City	Alex. Camp Wheaton.	1866–'68
NEBRASKA.		
Bellevue	D. E. Reed	1854
Bellevue	Rev. Wm. Hamilton	1857–'67
Bellevue	Henry M. Burt	1857
Bellevue	Miss E. E. Caldwell	1868
Blackbird Hills	Rev. Wm. Hamilton	1867–'68
Brownville	Charles B. Smith	1858–'60
Dakota City	H. H. Brown	1867–'68
Deer Creek	Major Thos. S. Twiss.	1859
De Soto	Charles Seitz	1867–'68
Elkhorn City	Anna M. J. Bowen	1858–'64
Elkhorn City	John S. Bowen	1865–'68
Fontanelle	John Evans	1859
		1862–'63
Fontanelle	Henry Gibson	1868
Fort Pierre	M. C. Rossean	1860–'61
Fort Union	E. T. Denig	1854
Glendale	A. L. Child, M. D	1861
		1866–'67
Glendale	Dr. A. C. Child and Miss J. E. Child.	1868
Joain	L. J. Hill	1865
Kenosha	Bela White	1859–'62
Nebraska City	Edgar E. Mason	1859
Nebraska City	P. Zahner	1868
Nursery Hill	R. O. Thompson	1865
Omaha	Wm. N. Byers	1857–'59
Omaha	John G. Rain	1859–'60
NEBRASKA—Con'd.		
Omaha	James P. Allan	1860–'61
Omaha	C. B. Wells	1868
Peru	J. M. McKenzie	1867
Rock Bluffs	H. C. Pardoe	1860–'61
South Pass wagon road expedition.	C. H. Miller	1859–'60
NEVADA.		
Star City	R. C. Johnson	1865
NEW HAMPSHIRE.		
Antrim	Rev. Wm. Hurlin	1866–'68
Claremont	F. N. Freeman	1857–'58
Claremont	Arthur Chase	1859–'68
Claremont	*Stephen O. Mead	1864–'67
Claremont	Linus Stevens	1867–'68
Concord	Dr. Wm. Prescott	1849–'57
Concord	H. E. Sawyer	1857–'58
Concord	E. P. Colby	1858
Concord	John T. Wheeler	1865–'68
Concord	James C. Knox	1868
Dublin	Rev. L. W. Leonard	1849
		1851–'52
Dunbarton	Alfred Colby	1868
Exeter	Rev. L. W. Leonard	1853–'55
Exeter	Rev. Elias Nason	1861–'65
Farmington	Louis Bell	1860–'61
Francestown	Dr. Martin N. Root	1857
Francestown	A. H. Bixby	1857–'58
Great Falls	Henry E. Sawyer	1854–'57
Hanover	Prof. Ira Young and A. A. Young.	1853–'54
Isle of Shoals	Thos. B. Laighton	1849
Lacoaia / Lake Village	J. W. French, agt. L. W. C. & W. M. Co	1857–'61
Littleton	Robert C. Whiting	1863–'64
Londonderry	Robert C. Mack	1849–'57
London Ridge	Isaac S. French, M. D.	1862–'65
Manchester	Hon. S. N. Bell	1852–'57
		1859–'61
North Barnstead	R. F. Hanscom	1855–'58
North Barnstead	Charles H. Pitman	1860–'68
North Littleton	Rufus Smith	1859–'60
		1863–'64
Portsmouth	Dr. C. Chase, U. S. N	1849
Portsmouth	John Hatch	1867–'68
Salmon Falls	George B. Sawyer	1853–'54
		1856
Shelbourne	Fletcher Odell	1856–'68
Stratford	B. Gould Brown	1855–'58
Stratham	Andrew Wiggins	1859–'60
Stratford	Branch Brown	1859–'68
Tamworth	Alfred Brewster	1867
Top of Mt. Washington.	Joseph H. Hall	1859
Weatworth	Peter L. Hoyt	1859
West Enfield	Nath. Parmort	1856–'58
NEW JERSEY.		
Belleville	Thos. B. Merrick	1849
Bloomfield	R. L. Cooke	1849–'58
		1862–'63
Burlington	Prof. Adolph Frost	1849–'54
Burlington	Dr. E. R. Schmidt	1855
		1857–'58
Burlington	Prof. A. Frost and Dr. E. R. Schmidt.	1856
Burlington	John C. Deacon	1863–'68
Cinnaminson	William Parry	1859–'60
Cole's Landing	James S. Lippincott	1864–'66
Dover	Howard Shriver	1866–'68
Elwood	J. S. Fritts	1867–'68
Freehold	B. F. Simpson and O. R. Willis.	1857–'58
Freehold	O. R. Willis	1859–'62
Greenwich	Benj. Sheppard	1856–'61

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
N. JERSEY—Con'd.		
Greenwich	Clarkson Sheppard	1864
Greenwich	C. Sheppard and Miss R. C. Sheppard.	1865–'67
Greenwich	Miss R. C. Sheppard	1868
Haddonfield	John Clement, jr	1849
Haddonfield	Samuel Wood	1866–'68
Lambertville	Jacob S. Gary	1849
Long Branch	Howard A. Stokes	1861, '63
Long Branch	Arch. Alexander	1865
Morristown	Dr. S. C. Thornton	1849, '61
Morristown	Miss E. E. Thornton	1859
Morristown	Thos. J. Beans	1865–'68
Morristown	Jos. W. Lippincott	1865
Mount Holly	Morgan J. Rhees, M.D	1861–'68
Newark	W. A. Whitehead	1849–'68
New Brunswick	Prof. Geo. H. Cook	1854
		1865–'68
New Brunswick	E. T. Mack	1854
New Brunswick	Edwin Allen	1859
New Brunswick	Edwin Allen and G. W. Thompson.	1860
New Brunswick	Geo. W. Thompson	1861–'65
Newfield	E. D. Conch	1867–'68
New Germantown	Arthur B. Noll	1868
Newton	Thos. Ryerson, M. D	1868
Passaic Valley	Wm. Brooks	1863–'65
Paterson	Wm. Brooks	1866–'68
Progress	Thos. J. Beans	1863–'65
Readington	John Fleming	1866–'67
Riceville	Prof. L. Harper	1860–'61
Rio Grande	Jerusha R. Palmer	1868
Salem	C. M. Dodd	1856
Salem	George Watson	1859
Seaville	Barker Cole	1865–'67
Seaville	E. C. Cole	1868
Sergeantsville	John T. Sergeant	1857–'58
Trenton	Ephraim R. Cook	1865–'68
Vineland	Jno. Ingram, M. D	1867–'68
Woodstown	George Watson	1860
NEW MEXICO.		
Pope's Expedition	James M. Reade	1855–'57
NEW YORK.		
Adam's Centre	C. D. Potter, M. D	1859–'61
Albany	H. M. Paine, M. D	1865–'66
Albion	L. F. Munger	1849–'54
Alps	James H. Ball	1849–'51
Angelica	E. M. Alba	1854–'58
Auburn	John B. Dill	1860–'65
Baldwinsville	John Bowman	1849–'67
Beaver Brook	C. S. Woodward	1853–'54
Bellport	H. W. Titus	1857–'62
Beverley	Thos. B. Arden	1853–'59
Blackwell's Island, N. Y.	W. W. Sanger, M. D.	1855–'57
Brookhaven	E. A. Smith and daughters.	1868
Buffalo	A. Hesmer	1849–'52
Buffalo	Elias O. Salisbury	1853–'54
		1860
Buffalo	Dr. S. B. Hunt	1854
Buffalo	W. D. Allen	1854
Buffalo	William Ives	1858–'62
		1866–'68
Buffalo	U. S. Engineers	1860–'63
Canton	E. W. Johnson	1853–'58
Cazenovia	Prof. Aaron White	1856–'64
Cazenovia	Prof. Wm. Soule	1865, '67
		1868
Charlotte	Andrew Mulligan	1859–'63
Chatham	Cornelius Chase	1849–'51
Chatham	C. Thornton Chase	1853–'54
Clinton	Prof. O. Root	1856
Clinton	H. M. Paine, M. D	1857–'59
		1862–'65
Clockville	J. P. Chapman	1849

Name of station.	Name of observer.	Years of observations.
N. YORK—Con'd.		
Clyde	Matthew Mackie	1859–'62
Constableville	L. L. Fairchild	1852
Constantia	Sereno Clark	1861
Dansville	Rev. John J. Brown	1859–'61
Depanville	Henry Hass	1865–'68
East Franklin	Dr. J. W. Smith	1854
East Henrietta	A. S. Wadsworth	1859, '62
Eden	Stephen Landon	1855
Eden	Anan S. Landon	1857–'59
Falconer	Laurens A. Langdon	1853–'54
Farmer	A. B. Covert	1859
Farmingdale	John C. Merritt	1868
Fishkill Landing	* W. H. Denning	1855–'66
Flatbush	Rev. Thos. H. Strong	1854–'55
Flatbush	Rev. R. D. Van Kleek	1856–'60
Flatbush	Rev. W. W. Howard	1860
Flatbush	Rev. E. T. Mack	1862–'68
Fordham	John Anhier	1856
Fordham	Claudius Pernot	1856–'57
Fordham	H. M. Paine, M. D	1858
Fordham	Rev. Jno. Anhier and Prof. A. T. Monroe.	1859–'62
		1864
Fort Ann	P. A. McMore	1863–'66
Fort Edward	Prof. Solomon Sias	1857–'59
Fort Niagara	L. Leffman	1859–'63
Fredonia	Prof. D. J. Pratt	1854, '63
		1864
Friendship	George W. Fries	1866–'67
Garrisons	Thos. B. Arden	1860–'61
		1863–'68
Geneva	Rev. W. D. Wilson	1855–'57
		1864–'68
Geneva	Job Elleston	1859
Germantown	Wm. Tompkins	1859
Germantown	Rev. Sanford W. Roe	1866–'68
Gouverneur	Dr. P. O. Williams	1852–'54
Gouverneur	Cyrus H. Russell	1860–'68
Glen's Falls	Warren P. Adams	1854
Great Valley	Kathalo Kelsey	1859–'60
Havana	Col. E. C. Frost	1859–'60
Hector	David Trowbridge	1865–'67
Hermitage	A. A. Hibbard	1860–'62
Homer	Edwin C. Reed	1855–'57
Honeoville	Walter D. Yale	1849–'54
		1856–'60
		1865–'68
Inst. for Deaf and Dumb, N. Y.	Prof. Oran W. Morris	1849–'68
Ilion	J. D. Ingersoll	1859–'60
Jamestown	Rev. Sanford W. Roe	1863–'66
Jericho, L. I	Albert G. Carll	1849
Lake	Peter Ried	1856–'58
Leroy	L. F. Munger	1854
Leyden	C. C. Merriam	1868
Liberty	John Felt	1855–'56
Lima	Prof. S. A. Lattimore	1861
Little Genesee	Daniel Edwards	1863–'68
Lockport	E. Giddings	1849
Lockport	James B. Trevor	1849–'52
Lodi	* John Lefferts	1849–'58
Lowville	Irah R. Adams	1854
Lowville	J. Caroll House	1854–'58
Lyons	Dr. E. W. Sylvester	1859–'62
Madrid	E. A. Dayton	1849–'59
Marathon	Lewis Swift	1863
McGrawville	J. Metcalf Smith	1856–'57
Mexico	John R. French	1855–'57
Minaville	D. S. Bussing and J. W. Bussing.	1867
Minaville	J. W. Bussing	1868
Mohawk	James Lewis	1861–'68
Morristown	William Day	1859
Moriches	E. A. Smith and Miss N. Smith.	1864–'67
Morley	Ezra Parmelee	1849
Newark Valley	Rev. Samuel Johnson	1868
Newburg	James H. Gardiner	1864–'68
New York	U. S. Naval Station	1849
New York	J. S. Gibbons	1854

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
N. YORK—Con'd.		
New York	S. De Witt Bloodgood	1854-'55
New York, (Eastern Dispensary.)	Caleb Swann and Dr. J. P. Loines.	1854-'61
New York	Fred. I. Slade	1860-'61
New York, (Rutherford's Observatory.)	Charles C. Wakely	1860-'63
New York	Naval hospital	1860-'68
New York, (N. Y. Skating Club.)	E. B. Cook	1863-'66
New York	Rev. John M. Ambler.	1865-'67
New York, (Columbia College.)	Prof. Chas. A. Joy	1865-'68
New York, (Central Park Observatory.)	Haden Patrick Smith	1867-'68
North Argyle	Geo. M. Hunt	1864
North Hammond	Charles A. Wooster	1866-'68
North Salem	John F. Jenkins	1849-'53
North Salem	Mrs. M. J. Lobdell	1855-'56
North Volney	J. M. Partrick	1868
Nichols	R. Howell	1857-'68
Ogdensburg	W. E. Guest	1849-'52 1854-'63
Oneida	Dr. Stillman Spooner.	1864-'68
Oswego	C. Strong	1849
Oswego	J. H. Hart	1851-'54
Oswego	Capt. W. S. Malcolm	1854-'68
Otto	Prof. Weston Flint	1861
Ovid	J. W. Chickering	1855-'58
Palisades	W. S. Gilman, jr	1868
Palmyra	Stephen Hyde	1864-'65
Peekskill	Charles A. Lee	1854
Penn Yan	Dr. H. P. Sartwell	1854-'57 1859
Perry City	David Trowbridge	1864
Philipstown	Thos. B. Arden	1851-'52
Pine Hill	Godfrey Zimmerman	1859-'60
Plainville	J. H. Norton	1856-'57
Plattsburg	Joseph W. Taylor	1855-'57
Pompey	S. Marshall Ingalls	1857-'58
Pompey Hill	John F. Kendall	1856
Poughkeepsie	Prof. C. B. Waring	1849
Rochester	Prof. Wetherell	1849
Rochester	* Prof. C. Dewey	1855-'67
Rochester	*Prof. M. M Matthews	1859-'67
Rochester	H. Wells Mathews	1868
Rochester	W. M. L. Fisk	1868
Sackett's Harbor	U. S. Naval Station	1849
Sackett's Harbor	Mandrin Linus	1851-'52
Sackett's Harbor	H. Metcalf	1859-'63
Sag Harbor	E. N. Byram	1849-'58
Saratoga	Walter H. Riker	1856-'59
Saugerties	R. G. Williams	1863-'66
Saugerties	Jas. W. Grush, Jas. M. Alexander, and Levi S. Packard.	1859-'60
Schenectady	Robert M. Fuller and Huron V. Swart.	1864
Schenectady	Alexis A. Julien and H. A. Schauber.	1858-'59
Seneca Falls	Elisha Foote	1849
Seneca Falls	John P. Fairchild	1849-'52
Seneca Falls	Chas. A. Avery	1853-'54
Seneca Falls	Philo Cowing	1861-'64
Sennett	Henry B. Fellows	1857
Sherburne	Rev. Jas. R. Haswell	1865
Sing Sing	C. F. Maurice	1849-'52
Skaneateles	W. M. Beauchamp	1860-'67
Slounsville	G. W. Potter	1868
Smithville	J. Everett Breed	1849-'52 1854-'56
Somerville	Dr. F. B. Hough	1849-'51
South Edmeston	L. A. Beardsley	1849-'51
South Hartford	Grenville M. Ingalsbee.	1863-'68
South Trenton	Capt. Storrs Barrows.	1863-'68
Spencertown	A. W. Morehouse	1855-'57
Spencertown	Irving Magee	1858
N. YORK—Con'd.		
Spencertown	Levi S. Packard	1861
Springville	J. W. Earle	1849
Springville	Moses Lane	1851
Stapleton	Spencer L. Hillier	1867-'68
Suffern	James H. Warren	1863
Syracuse	Henry L. Dinsmore	1851-'52
Theresa	S. O. Gregory	1861-'68
Throg's Neck	Francis M. Rogers	1864, '66
Throg's Neck	Miss Elizabeth Morris.	1865-'68
Troy	John W. Helmstreet	1849-'68
Troy	Prof. E. A. H. Allen	1853-'54
Troy	Prof. Dascom Greene	1856-'57
Troy	Wm. L. Haskin	1860-'61
Utica	Dr. L. A. Tourtellot	1856-'57 1868
Utica	Joseph Graham	1860
Vermillion	E. B. Bartlett	1860-'68
Wales	S. O. Carpenter	1854
Wampsville	Dr. Stillman Spooner.	1853-'63
Warsaw	J. P. Morse	1865
Waterburgh	David Trowbridge	1868
Waterford	John C. House	1856-'63
Watertown	Dr. P. O. Williams	1855-'57
Waterville	James M. Tower	1849-'51
Wellsville	H. M. Sheerer	1857-'58 1860
West Concord	Lewis Woodward	1856-'57
West Day	Jude M. Young	1858-'59
West Farms	J. S. Gorton	1856-'57
West Morrisania	I. Zaepffel	1857-'59
White Plains	O. R. Willis	1862-'68
Wilson	E. S. Holmes	1858-'64
NORTH CAROLINA.		
Asheville	W. W. McDowell	1857-'58
Asheville	E. J. Aston	1867-'68
Asheville	J. F. E. Hardy, M. D.	1868
Attaway Hill	F. J. Koon	1849-'62 1867-'68
Chapel Hill	Prof. James Phillips	1849-'61
Davidson College	Prof. W. C. Kerr	1858-'59
Gaston	Geo. F. Moore, M. D.	1856-'58
Goldsborough	Prof. D. Morelle	1855-'58
Greensboro'	Geo. F. Moore, M. D.	1859-'61
Goldsborough	Prof. E. W. Adams	1860-'61 1868
Green Plains	Sam'l W. Westbrook.	1859
Guilford Mine	Alexander Wray	1867
Jackson	Rev. Fred. Fitzgerald	1852-'54
Kennansville	Prof. N. B. Webster	1868
Lake Scuppernong	Rev. J. A. Sheppard.	1849-'52
Lake Scuppernong	D. Morrell	1851
Lincolnton	Dr. J. Bryant Smith.	1854
Murlboro'	Robert M. Drysdale	1858
Murfreesboro'	Rev. A. McDowell	1856-'61
Oxford	John H. Mills	1866-'67
Oxford	Wm. R. Hicks, M. D.	1867-'68
Raleigh	T. Carter and W. H. Hamilton.	1859
Raleigh	W. H. Hamilton	1860
Raleigh	Rev. Fisk P. Brewer	1866-'68
Rutherfordtown	J. W. Cullowny	1849
Statesville	Thos. A. Allison	1866-'68
Thornbury	Rev. F. Fitzgerald	1854
Thornbury	Dun. Morelle	1854
Trinity College,	Rev. B. Craven	1860-'61
Warrenton	Dr. W. M. Johnson	1857-'58
Wilson	E. W. Adams	1866
OHIO.		
Andrews	Dr. W. W. Spratt	1860-'61
Athens	Prof. W. W. Mather	1849-'51
Austinburg	J. G. Dole and C. S. Griffing.	1862-'63
Austinburg	David S. Alvord	1864
Austinburg	J. G. Dole	1864
Austinburg	E. D. Winchester	1864-'66

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
OHIO—Continued.		
Avon	Rev. L. F. Ward	1858–'60
Bellecentre	Rev. R. Shields and J. C. Smith.	1857–'59
Bellecentre	Rev. Robert Shields	1854
		1860–'61
Bellefontaine	Joseph Shaw	1855–'60
Berea	Prof. G. M. Barber	1854
Bethel	George W. Crane	1859–'68
Bowling Green	W. R. Peck, M. D	1857–'61
Bowling Green	John Clarke	1866–'68
Brookville	Rev. S. L. Hillier	1859–'61
Cardington	Hubert A. Schauber	1863
Centralia	Hubert A. Schauber	1864–'66
Cheviot	Ebenezer Hannaford	1855–'57
Cincinnati	John Lea	1849
Cincinnati	F. W. Hurtt	1854
		1857–'58
Cincinnati	Geo. W. Harper	1855–'68
Cincinnati	A. A. Warder	1859–'63
Cincinnati	R. C. & J. H. Phillips	1859–'64
Cincinnati	Eli T. Tappan	1860–'62
Cincinnati	R. C. Phillips	1865–'68
Cleveland	Gustavus A. Hyde	1851
		1855–'61
		1868
Cleveland	Edward Wade	1852
Cleveland	Edward Colburn	1858–'63
Cleveland	U. S. Engineers	1860–'63
Cleveland	G. A. Hyde and Mrs. Hyde.	1862–'67
Cleveland	T. A. Smurr	1866–'68
College Hill	G. S. Ormsby	1854
College Hill	Prof. R. S. Bosworth	1853–'57
College Hill	Prof. J. H. Wilson	1858–'65
College Hill	J. W. Hammitt	1859–'68
College Hill	L. B. Tuckerman	1855–'67
Collingwood	Henry Bennett	1856–'57
Collingwood	Sarah E. Bennett	1858
Coshocton	Thos. H. Johnson	1861–'62
Columbus	Theo. G. Wormley	1851, '52
Croton	Mark Sperry	1860
Croton	Rev. E. Thompson and Mark Sperry.	1861
Croton	Rev. Elias Thompson.	1862–'63
Cuyahoga Falls	D. M. Rankin	1864–'65
Dallasburg	F. G. Hill	1859–'63
Dayton	Cooper Female Seminary.	1856
Dayton	Jas. C. Fischer, M. D.	1856
Dayton	Lewis Groneweg	1858
East Cleveland	Mrs. M. A. Pillsbury	1861–'62
East Fairfield	S. B. McMillan	1859–'67
East Rockport	Dr. J. P. Kirtland	1854
Eaton	Thomas J. Larsh	1863–'65
Edinburg	Smith Sanford	1857–'58
Franklin	W. L. Schenck, M. D.	1855–'57
Freedom	H. M. Davidson	1859–'60
Freedom	H. M. Davidson and Wilson Davidson.	1861
Freedom	Wilson Davidson	1862
Gallipolis	G. W. Livesay	1854–'56
Gallipolis	A. P. Rogers	1857–'58
		1864–'68
Garrettsville	Warren Pierce	1861–'63
Germantown	L. Groneweg	1852–'56
Germantown	J. S. Binkerd	1856–'57
Granville	Prof. P. Carter	1849
Granville	Dr. S. N. Sanford	1849–'58
Harmar	W. G. Fuller	1860–'61
Hillsborough	Rev. J. McD. Mathews.	1851–'60
		1863–'68
Hillsborough	C. C. Janes	1857
Hillsborough	Dr. C. C. Simms	1863
Hiram	S. L. Hillier and S. M. Luther.	1855
Hiram	Spencer L. Hillier	1856
Hiram	S. M. Luther	1856–'60
Hocking Port	Dr. John Rhoades	1859–'60
Homer	Thos. F. Withrow	1852
OHIO—Continued.		
Hudson	Prof. C. A. Young and E. W. Childs.	1858–'59
Hudson	Prof. C. A. Young and A. C. Barrows.	1860–'61
Hudson	Prof. C. A. Young, E. W. Stuart, J. C. Elliott, W. Pettingill, H. R. Watterson.	1862
Hudson	Prof. C. A. Young and J. C. Elliott.	1863
Huron	Edmund W. West	1854
Iberia	S. T. Boyd	1859
Jackson	Geo. L. Crookham	1849–'54
Jackson	G. L. Crookham and M. Gilmore.	1855
Jackson	S. B. Wood	1855
Jackson	M. Gilmore	1857–'58
Jacksonburgh	J. B. Owsley, M. D.	1868
Jefferson	James D. Herrick	1855–'58
Keene	Dr. E. C. Bidwell	1849–'52
Keene	E. Spooner	1853–'54
Kenton	C. H. Smith, M. D.	1862–'63
		1866–'68
Kelly's Island	Geo. C. Huntingdon	1859–'68
Kingston	Prof. Jno. Haywood	1863–'67
Lafayette	Samuel Knoble	1867
Lancaster	Lewis M. Dayton	1857
Lancaster	H. W. Jaeger	1858
Lancaster	W. E. Davis	1859
Lancaster	J. W. Towson	1866
Lebanon	Joseph C. Hatfield	1849
Little Hocking	James Fraser	1862–'63
Little Mountain	E. J. Ferriss	1867–'68
Madison	Rev. L. S. Atkins	1857–'60
Madison	Mrs. Ardalia C. King.	1859–'63
Mansfield	F. A. Benton	1851–'52
Marietta	D. P. Adams	1860–'63
Marietta	Prof. J. W. Andrews	1849–'55
Marion	H. A. True	1865–'68
Marion	T. Chase	1859
Martin's Ferry	Charles R. Shrevo	1867
Medina	Rev. L. F. Ward	1857–'58
Medina	Wm. P. Clarke	1858–'63
Middlebury	Michael Beecher	1849
Milnersville	Rev. D. Thompson	1862–'68
Monroe county	Enoch D. Johnson	1859
Mount Auburn	Senior class Mt. Auburn Female Inst.	1868
Mt. Pleasant	David H. Tweedy	1859–'60
Mount Tabor	William Lapham	1849
Mount Union	Newton Anthony	1857–'60
Mount Vernon	F. A. Benton	1853–'55
Mount Victory	W. C. Hampton	1859–'60
Newark	Lewis M. Dayton	1854–'55
Newark	Isaac Dille	1859–'63
New Concord	Prof. S. G. Irvine	1849
New Lisbon	J. F. Benner	1857–'68
New Westfield	A. E. Jerome	1862–'63
North Bend	R. B. Warder	1868
North Fairfield	O. Burras	1867–'68
Northwood	Prof. J. R. W. Sloane	1852
Norton	W. D. Watkins	1849
Norwalk	G. A. Hyde	1854
Norwalk	Rev. Alfred Newton	1861–'68
Oberlin	Profs. Fairchild and Dascomb.	1849–'50
Oberlin	Prof. J. N. Allen	1851–'52
		1857
Oberlin	Prof. J. H. Fairchild	1853–'56
Oberlin	Frederick Allen	1860
Perryshurg	F. Hollenbeck	1854–'56
		1858
Perrysburg	F. and D. K. Hollenbeck.	1857
Portsmouth	James H. Poe	1855–'58
Portsmouth	D. B. Cotton, M. D	1859–'63
Portsmouth	Lud. Engelbrecht	1863–'65
Republic	Stephen S. Dorsey	1851
Richmond	Jacob N. Desellem	1854–'55

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List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
OHIO—Continued.		
Ripley	J. Ammen	1857–'61
Ripley	Dr. G. Bamback	1864–'67
Ripley	Mrs. M. M. Marsh	1867–'68
Russell Station	J. W. Gamble	1859–'60
Sandusky	Thomas Niell	1859–'68
Savannah	Dr. John Ingram	1854–'63
Saybrook	Rev. L. S. Atkins	1862–'63
Saybrook	James B. Fraser	1864–'66
Sevillo	Rev. L. F. Ward	1861–'62
Sharonville	Wm. F. Bowen	1859–'60
Sidney	Joseph Shaw	1857
Smithfield	D. H. Tweedy	1866
Smithville	John H. Myers	1864–'66
Smithville	Wm. Hoover	1868
Steubenville	Roswell Marsh	1849–'63
Steubenville	J. B. Doyle	1865–'68
Springfield	Samuel C. Frey	1859–'61
Toledo	Sarah E. Bennett	1859
Toledo	E. B. Raffensperger	1859
Toledo	J. B. Trembley, M. D.	1860–'68
Troy	Charles L. McClang	1859–'63
Twinsburg	N. A. Chapman	1860
Unionville	Miss A. Cunningham	1854–'57
Unionville	Mrs. Ardelia C. King	1858
Urbana	Prof. M. G. Williams	1855–'68
West Bedford	H. D. McCarty	1856–'57
Welchfield	B. F. Ahell	1857–'66
Wollington	Rev. L. F. Ward	1863
Westerville	Prof. Jno. Haywood	1858–'62
		1868
Westerville	Prof. H. A. Thompson	1863–'67
Western Star	A. S. Stuver	1861
West Union	Rev. Wm. Lumsden	1860–'61
Wooster	Eugene Pardee	1849
Wooster	Martin Winger	1864–'68
Williamsport	John R. Wilkinson	1867–'68
Windham	Samuel W. Treat	1857–'59
Yankeetown	A. Jacque	1854
Yellow Springs	W. A. Authony	1868
Zanesfield	John F. Lukins	1854
Zanesville	L. M. Daytou	1856
Zanesville	Adam Peters	1859
Zanesville	J. G. F. Holstou, M.D.	1853–'57
OREGON.		
Albany	S. M. W. Hindman	1865–'68
Auburn	R. B. Ironside	1863–'65
Auburn	S. M. W. Hindman	1864–'65
Corvallis	A. D. Barnard	1866–'68
Fort Snyder	James A. Snyder	1858
Fort Thompson	W. H. Wagner	1857–'58
Oregon City	Geo. A. Atkinson	1851–'52
Portland	Geo. H. Stebbins	1858–'59
Salem	Thos. H. Crawford	1861
Salem	P. L. Willis	1863–'65
PENNSYLVANIA.		
Ahington	Rodman Sisson	1864–'68
Altoona	W. R. Boyers	1859–'60
Altoona	Thomas H. Savery	1863
Andersville	R. Welser	1854
Beaver	Rev. R. T. Taylor	1867–'68
Bedford	* Samuel Brown	1852–'58
Bedford	Rev. H. Heckerman	1859–'61
Bellefonte	J. I. Burrell	1858–'59
Bendersville	Franklin W. Cook	1859
Bendersville	T. E. Cook & Sons	1859–'60
Berwick	John Eggert	1856–'61
		1863–'65
Bethlehem	L. R. Huebener	1849
Bethlehem	Nathan C. Tooker	1867
Bethlehem	Prof. A. M. Mayer	1867–'68
Blairsville	W. R. Boyers	1861–'65
Blooming Grove	John Grathwohl	1865–'68
Brookville	D. S. Deering	1854
Byberry	John Comly	1852–'54
		1857–'58
PENN.—Continued.		
Byberry	John W. Saurman	1860–'61
Byberry	Isaac C. Martindale	1861–'67
Canonsburg	Prof. J. R. Williams	1849
Canonsburg	F. L. Stewart	1849
Canonsburg	Rev. Wm. Smith, D. D.	1855–'61
		1863–'68
Canonsburg	Charles Davis	1860
Canonsburg	Lyceum Jefferson Col.	1861–'63
Carlisle	Prof. S. F. Baird	1849
Carlisle	Prof. W. C. Wilson	1855–'59
Carlisle	W. H. Cook	1868
Carpenter	E. L. McNett	1862
Ceres	R. P. Stevens	1849–'54
Chambersburg	Wm. Heyser, jr.	1858–'62
Chromedale	Joseph Edwards	1854–'57
Chromedale	Joseph Edwards and John H. Smedley.	1858
Clarksburg	Barnet McElroy	1852
Connellsville	John Taylor	1849–'68
Darby	John Jackson	1849–'52
Dyberry	Theodore Day	1865–'68
Easton	A. R. McCoy	1849
Easton	Prof. J. H. Coffin	1851
Easton	E. L. Dodder	1851
Easton	Selden J. Coffin	1857–'58
Easton	Selden J. Coffin and G. S. Houghton.	1859–'60
Easton	Geo. S. Houghton	1861
East Smithfield	James E. Tracy	1859
Erie	Benjamin Grant	1849
Ephrata	W. H. Spera	1865–'68
Fallsington	Ebenezer Hance	1865–'68
Franklin	Rev. M. A. Tolman	1867–'68
Freeport	Dr. A. Alter	1849
Freeport	Andrew Roulston	1849–'51
Freeport	A. D. Wier	1854
Freeport	John H. Baird	1860
Fleming	Samuel Brugger	1856–'67
Fountain Dale	S. C. Walker	1868
Germantown	S. Ebert	1859
Germantown	Thos. Meeban and J. Meeban.	1862–'64
Germantown	Thomas Meeban	1859–'61
		1865–'68
Gettysburg	Prof. M. Jacobs	1849–'60
Gettysburg	Rev. M. Jacobs and D. Eyster.	1861
Gettysburg	Rev. M. Jacobs and H. E. Jacobs.	1862–'65
Grampian Hills	Elisha Fenton	1864–'68
Harrisburg	Dr. J. Heisely	1849–'68
Harrisburg	W. O. Hickok	1857–'64
Harrisburg	K. A. Martin	1860–'61
Haverford	Dr. Paul Swift	1853–'63
Holidaysburg	J. R. Lowrie	1853
Honesdale	M. H. Cobb	1852
Horsham	Miss Anna Spencer	1864–'68
Huntingdon	Wm. Brewster, M. D.	1859
Ickesburg	Wm. E. Baker	1867–'68
Indiana	David Peelor	1849, '51
Indiana	Wm. D. Hildebrand and David Peelor.	1858
Johnstown	David Peelor	1868
Kingsleys	Francis Schreiner	1852
Lancaster	F. A. Muhlenburg, jr.	1849
Lancaster	John Wise	1849–'51
Latrobe	Prof. Rudolph Muller.	1860–'62
Latrobe	W. R. Boyers	1861
Lewisburg	Prof. C. S. James	1855–'60
		1865–'68
Lima	Messrs. Edwards and Miller.	1849–'52
Lima	Joseph Edwards	1853
Lima	John H. Smedley	1859
Linden	James Barrett	1858–'59
Manchester	Corydon Marks	1849–'52
Meadville	Prof. L. D. Williams	1849–'51
Meadville	T. H. Thickstun	1854–'58
Media	Isaac N. Kerlin, M. D.	1860

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
PENN.—Continued.		
Moorhead	R. L. Walker	1863
Morrisville	Ebenezer Hanco	1849–'64
Morrisville	Mahlon Moore	1859
Moss Grove	Francis Schreiner	1853–'57
Mount Joy	Mary E. Heffer	1857–'58
Mount Joy	Dr. Jacob R. Hoffer	1860–'68
Murrysville	Thomas H. Stewart	1857–'59
Murrysville	F. L. Stewart	1867–'68
Nazareth	E. T. Kluge	1851
Nazareth	E. T. Kluge and E. Kummer.	1852
Nazareth	H. A. Brickenstein	1855–'57
Nazareth	J. C. Harvey	1859–'60
Nazareth	O. T. Huebner	1861
Nazareth	O. T. Huebner and L. E. Rickseecker.	1862
Nazareth	L. E. Rickseecker	1863–'66
New Castle	E. M. McConnell	1866–'68
Norristown	Rev. J. G. Ralston	1851–'63
Northeast	John T. Milliken	1867
North Whitehall	Edward Kohler	1856–'68
Oil City	James A. Weeks	1863–'64
Oxford	Henry Duffield, M. D.	1865
Paradise	Jacob Frantz	1854–'58
Parkerville	Fenelon Darlington	1859–'63
		1865
Philadelphia	U. S. Navy-yard	1849
Philadelphia	Lt. Jos. Reed, U. S. N.	1849
Philadelphia	Dr. Paul Swift	1849–'52
Philadelphia	J. F. Coorlies	1849–'52
Philadelphia	Prof. J. A. Kirkpatrick.	1852–'60
		1862–'68
Philadelphia	U. S. Naval Hospital.	1857–'68
Philadelphia	J. C. Martindale, M. D.	1860–'61
Philadelphia	P. Friel	1863
Philadelphia	Homer Eachers	1864
Philadelphia	Penn'vania Hospital	1864–'65
Philadelphia	J. M. Ellis	1867
Pittsburg	Edward Fendorich	1849–'51
Pittsburg	Dr. H. Smyser	1849–'54
Pittsburg	W. W. Wilson	1852–'58
Pittsburg	Wm. Martin	1857
Pittsburg	John Hastings and Wm. Martin.	1855
Pittsburg	Wm. Martin and Dr. Alex. M. Speer.	1858
Pittsburg	Dr. Alex. M. Speer	1859–'61
Pittsburg	Prof. Rudolph Muller.	1863
Plymouth Meeting	Marcus H. Corson	1868
Pocopson	Fenelon Darlington	1853–'58
		1866–'68
Pottsville	John Hughes	1854–'55
Pottsville	Dr. A. Heger	1855
Pottsville	Rev. B. R. Smyser	1857
Pottsville	D. Washburn	1858
Randolph	Orrin T. Hobbs	1851–'52
		1854–'56
Reading	John Heyl Raser	1857–'63
		1866–'68
Reading	Dr. J. B. Peale and Charles Hahn.	1858
Scranton	Dr. A. P. Meybert	1858
Sewickleyville	John I. Travelli	1859–'60
Sewickleyville	J. I. Travelli and G. H. Tracy.	1861
Sewickleyville	George H. Tracy	1862
Shamokin	P. Friel	1856–'63
Silver Spring	H. G. Bruckart	1863–'68
Somerset	Rev. David J. Eyler	1852
Somerset	Dr. F. Chorpenning	1856
Somerset	George Mowry	1857–'61
Stevensville	J. Russell Dutton	1866–'67
St. Mary's	Wm. A. Stokes	1849
Sugar Grove	Lorin Blodget	1849–'51
Sugar Grove	W. O. Blodgett	1852–'54
Summit Hill	M. Abbott	1852
Summitville	Thos. Seebrook	1852
Susquehanna Depot	H. H. Atwater	1863
Tarentum	John H. Baird	1856–'60
PENN.—Continued.		
Tioga	E. T. Bentley	1863–'68
Towanda	S. J. Coffin, W. H. Dean, I. H. Kingsbury.	1861
Troy Hill	Victor Scriba	1855–'56
Uniontown	Freeman Lewis	1849
Valley Forge	C. P. Jones	1849
Warrior's Mark	J. R. Lowrie	1854
Waynesbore'	Rev. D. J. Eyler	1853–'54
Wellsboro'	Henry W. Thorp	1849
Westchester	Samuel Alsop	1858–'59
Westchester	Prof. A. G. Clark and T. H. Aldrich.	1864–'65
Westchester	Dr. Geo. Martin	1868
Whitehall Station	Edward Kohler	1859–'60
Williamsport	H. C. Moyer	1864
Worthington	Samuel Scott	1859–'62
Youngsville	Dr. A. C. Bledget	1853–'54
RHODE ISLAND.		
East Greenwich	E. G. Arnold	1855–'56
Newport	Samuel Powel	1854
Newport	Wm. H. Crandall	1865–'68
North Scituate	Henry C. Sheldon	1853–'54
Portsmouth	Geo. Manchester	1854
Providence	Prof. A. Caswell	1849–'67
Providence	H. C. Sheldon	1860–'64
SOUTH CAROLINA.		
Aiken	H. W. Ravenel	1854–'56
Aiken	Rev. J. H. Cornish	1857–'61
		1867–'68
Anderson	E. S. Earle	1868
Barrattsville	Dr. Jno. P. Barratt	1849–'51
Beaufort	Dr. M. M. Marsh and Mrs. Marsh.	1863–'65
Black Oak	Thos. P. Ravenel	1858–'61
Camden	J. A. Young, M. D.	1849–'51
		1854–'57
Camden	T. Carpenter	1851–'54
Charleston	Prof. L. R. Gibbes	1851
Charleston	Dr. Jos. Johnson	1855–'57
Charleston	J. L. Dawson, M. D.	1857
Charleston	Jos. Johnson, M. D., and J. L. Dawson, M. D., and G. S. Pelzer, M. D.	1858–'61
Columbia	Col. W. Wallace	1851
Columbia	F. H. Harleston	1856
Columbia	Prof. J. B. White	1856
Columbia	Capt. C. C. Tew	1858
Columbia	E. H. Burton, M. D.	1859
Columbia	Sup't Arsenal Acad'y.	1859
Edisto Island	E. N. Fuller	1855–'57
Georgetown	Rev. Alex. Glennie	1859–'61
Gowdysville	Charles Petty	1868
Hilton Head	Maj. J. W. Ahort, U. S. Eng., Capt. C. R. Suter.	1864
Hilton Head	Maj. C. R. Suter, U. S. Engineers.	1865
Mount Pleasant	E. N. Fuller, M. D.	1857
Orangeburg	Thos. A. Elliott	1849
Orangeburg	Joseph T. Zealy	1849
St. Johns	H. W. Ravenel	1849–'52
St. Johns	Thos. P. Ravenel	1859–'60
Waccaman	Rev. Alex. Glennie	1854–'58
Wilkinsville	Chas. Petty	1866–'67
TENNESSEE.		
Austin	S. K. Jennings, M. D.	1860–'61
Austin	P. B. Calhoun	1868
Chattanooga	Dr. G. H. Blaker	1864
Clarksville	Prof. W. M. Stewart	1851–'68
Dixon Springs	Thos. L. Sawyer	1852
Dover	B. F. Tavel	1849

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
TENN.—Continued.		
Elizebethton	Charles H. Lewis	1868
Fayetteville	Dr. W. W. McNulty	1849–'51
Franklin	Jos. M. Perker, M. D.	1867
Friendship	Dr. Robert T. Carter	1854–'55
Greenville	S. S. & W. S. Doak	1866–'68
Knoxville	O. W. Morris	1851–'52
Knoxville	Prof. Geo. Cooke	1853
Knoxville	Prof. Geo. Cooke and L. Griswold.	1854
Knoxville	T. L. Griswold	1855–'56
Knoxville	Stephen C. Dodge	1860
La Grange	J. R. Blake	1859–'60
Lebanon	Prof. A. P. Stewart	1851–'54
Lebanon	Prof. B. C. Jilson	1854
Lookout Mountain	Edward F. Williams	1866–'67
Lookout Mountain	Rev. C. F. P. Bancroft	1867–'68
Memphis	U. S. Navy Yard	1849, '53
Memphis	R. Harris	1851–'52
Memphis	* W. J. Tuck, M. D.	1857–'58
Memphis	Dr. Daniel F. Wright	1857
Memphis	Drs. W. J. Tuck and R. W. Mitchell.	1859
Memphis	R. W. Mitchell, M. D.	1860–'61
Memphis	Edward Goldsmith	1867–'68
Nashville	Prof. Jas. Hemilton	1849
Nashville	Wm. Rothrock	1849
Nashville	James Higgins	1854
Nashville	Fred. H. French	1867–'68
Pomona	J. W. Dodge & Son	1859–'61
Trenton	Prof. Hamilton	1854
University Place, Franklin county.	Chas. R. Barney	1859–'61
Walnut Grove	James B. Bean	1856–'57
Winchester	S. W. Houghton	1859–'60
TEXAS.		
Aransas	Frederick Kaler	1860
Austin	Dr. Sam'l K. Jennings	1852–'56
Austin	J. W. Glenn	1854
Austin	Dr. S. K. Jennings and J. Van Nostrand.	1857
Austin	Swante Palm	1858–'64
Austin	J. Van Nostrand	1858–'61
		1867–'68
Bastrop	J. D. Cunningham	1859
Bonham	Prof. Solomon Sias	1859–'60
Boston	G. Freese	1860–'61
Boundary Survey	John H. Clark	1859
Burkeville	Dr. N. P. West	1859–'61
Ceder Grove Pl'n	Hennell Stevens	1867–'68
Chappell Hill	W. H. Gantt	1866–'67
Columbus	Dr. W. G. De Graffenried.	1859
Cross Roads	F. S. Wade	1859–'60
Dallas	John M. Crockett	1859
Galveston	Drs. C. H. Wilkinson, H. A. McComly, and others.	1867
Geological Survey	Geo. G. Shumard	1859
Gilmer	J. M. Glesco	1859–'61
		1867–'68
Goliad	John C. Brightman	1857–'58
Gonzales	Melvin H. Allis	1859–'61
Greenville	Dr. R. De Jernett	1859–'60
Helena	John C. Brightman	1856–'57
Houston	* Dr. A. M. Potter	1862–'65
Houston	Miss E. Baxter	1867–'68
Huntsville	H. Yoakum	1849–'51
Huntsville	J. H. Browne	1852
Huntsville	T. Gibbs	1858–'60
Kaufmen	James T. Rayal	1859–'66
Kaufman	James Brown	1866
Jefferson	W. T. Epperson	1859
Larissa	F. L. Yoekum	1858–'60
Long Point	M. Rutherford	1867
New Braunfels	A. Forke and Otto Friedrich.	1857
New Braunfels	Otto Friedrich	1858–'60
TEXAS—Continued.		
New Wied	T. C. Ervendberg	1849–'54
New Wied	J. L. Forke	1855–'57
Pope's Expedition	James M. Reade	1855–'57
Port Le Vaca	James Gardiner	1859
Roundtop	Bruno Shuman	1859–'61
San Patricio	J. O. Gaffney	1859–'60
Sisterdale	Ernest Kapp	1859–'60
Springfield	T. A. Turner	1859
Tarrant	Dr. B. L. D'Spain and J. M. Ewing.	1859–'60
Texana	William Colmao	1859
Turner's Point	James Rayal	1861
Union Hill	Dr. Wm. H. Gent	1857–'61
Waco	Edward Merrill, M. D.	1867–'68
Washington	B. H. Rucker	1856–'60
Webberville	Prof. C. W. Yellowby	1859–'61
Wheelock	F. Kellog	1859–'61
Woodboro	Dr. Jas. E. Moke	1859–'60
UTAH.		
Gt. Salt Lake City	H. E. Phelps	1857
Gt. Salt Lake City	H. E. Phelps and W. W. Phelps.	1858
Gt. Salt Lake City	W. W. Phelps	1859–'61
		1863–'68
Harrisburg	James Lewis	1867–'68
Heberville	Harrison Pearce	1860–'61
Rockville	Andrew L. Siber	1866
St. George	Harrison Pearce	1862–'64
St. George	H. Pearce and G. A. Burgon.	1865–'66
St. Mary's	Thomas Bullock	1865
Vineland	Andrew L. Siber	1864
Wanship	Thomas Bullock	1866–'68
Washington	Harrison Pearce	1860
VERMONT.		
Barnet	B. F. Eaton, M. D.	1866–'67
Bradford	L. W. Bliss	1856–'57
Brandon	* D. Buckland	1852–'64
Brandon	Harmon Buckland	1864–'67
Brattleboro'	Cherles C. Frost	1849–'51
Brookfield	T. F. Pollard	1863
Burlington	Prof. Zadok Thompson.	1849–'54
Burlington	McK. Petty	1857–'64
Calais	James K. Toby	1861–'64
Castleton	D. Underwood	1852–'54
Charlotte	M. E. Wing	1868
Craftsbury	Chas. A. J. Marsh	1853–'54
Craftsbury	* James A. Paddock	1855–'67
East Bethel	Charles L. Paine	1865
East Montpelier	B. J. Wheeler	1855
Lunenburg	Hiram A. Cutting	1859–'68
Middlebury	Prof. W. H. Parker	1849–'52
Middlebury	Harmon A. Sheldon	1865–'68
Montpelier	D. P. Thompson	1849, '51
Montpelier	M. M. Marsh	1863
North Craftsbury	Rev. Edward P. Wild	1867–'68
Norwich	A. Jackman	1855–'59
Randolph	R. M. Menley	1849–'51
Randolph	Charles L. Paine	1866–'68
Rupert	Joseph Parker	1857–'63
Rutland	* S. O. Mead	1862–'64
Saxes' Mills	J. C. Baker	1855
Shelburne	George Bliss	1855–'57
Springfield	Rev. J. W. Chickering	1860–'63
St. Johnsbury	J. K. Colby and J. P. Fairbanks.	1853–'55
St. Johnsbury	Franklin Fairbanks	1857–'61
West Fairlee	L. W. Bliss	1858
Wilmington	Rev. John B. Perry	1866–'67
Woodstock	Charles Marsh	1857–'58
Woodstock	Lester A. Miller	1867
Woodstock	H. Doteo and L. A. Miller.	1868

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations.
VIRGINIA.		
Anna	Rev. C. B. McKee	1858–'59
Alexandria	Benj. Hallowell	1849
		1853–'58
Ashland	Samuel Couch	1854
		1856–'57
Berryville	Miss E. Kownslar	1855–'57
Berryville	Dr. R. Kownslar	1858
Bridgeton	C. R. Moore	1868
Bridgewater	Jed. Hotchkiss	1852, '54
Buffalo	Prof. G. R. Rossiter	1851–'54
Buffalo	Samuel Couch	1855, '58
Buffalo	Wm. R. Boyers	1858–'59
Cape Charles	* Jean G. Potts	1867–'68
Charleston	Jas. E. Kendall	1856–'57
Charlottesville	Chas. J. Meriwether	1849–'51
Charlottesville	J. Ralls Ahell	1859–'61
Christiansburg	Wm. C. Hagan	1851
Cobham	Chas. J. Meriwether	1852
Cobham Depot	Geo. C. Dickinson	1859–'61
Crichton's Store	R. F. Astrop	1852–'61
Diamond Grove	R. F. Astrop	1849–'51
Falmouth	Abraham Van Doren	1859–'61
Fredericksburg	Chas. H. Roby	1859–'61
Fredericksburg	B. R. Wellford	1849
Fork Union	Silas B. Jones	1859–'61
Garysville	T. S. Beckwith, M. D.	1856
Garysville	Julian C. Ruffin	1859
Gosport	United States Navy Yard.	1849
Hartwood	Abraham Van Doren	1858
Heathsville	J. C. Wills	1849
Hewlett's	J. F. Adams	1867
Holliday's Cove	B. D. Sanders	1858
Johnsontown	C. R. Moore	1868
Leesburg	N. F. D. Browne	1849
Leesburg	Samuel X. Jackson	1854
Lexington	Wm. K. Park	1861
Lexington	W. H. Ruffner	1867–'68
Lloyd	Geo. W. Upshaw	1859
Longwood	Thos. J. Wickline	1857
Lynchburg	A. Nottleton	1854
Lynchburg	Chas. J. Meriwether	1866–'68
Madison	Dr. A. M. Grinnan	1851–'52
Meadow Dale	James Slaven	1857–'59
Middlesex	L. C. Breckenstein	1852
Montevin	Chas. J. Meriwether	1854
Montrose	H. H. Fauntleroy	1856–'57
Montrose	Edwd. E. Spence	1858–'59
Mossy Creek	Jed. Hotchkiss	1856–'58
Mount Solon	Jas. T. Clarke	1855–'56
		1867–'68
Mustapha	James Fraser	1857–'58
New England	James Fraser	1859–'61
Norfolk	United States Naval Hospital.	1868
Portsmouth	N. B. Webster	1852–'60
Portsmouth	Naval Hospital	1860–'61
Powhatan Hill	Edward T. Tayloe	1849–'68
Prince Edward	Prof. Fra. J. Nuttaner	1849–'52
Richmond	David Turner	1849–'54
Richmond	Chas. J. Meriwether	1859–'61
Richmond	John Appleyard	1860
Rose Hill	Geo. W. Upshaw	1857–'58
Rougemont	Geo. C. Dickinson	1857–'58
Rutheven	Julian C. Ruffin	1856–'58
Salem	J. Carson Wells	1857–'58
Smithfield	John R. Purdie	1856–'61
Snowville	J. W. Stalnaker	1867–'68
Staunton	J. B. Imhoden	1849
Staunton	J. C. Covell	1868
Strihling Springs	Jed. Hotchkiss	1859
Surry	Benj. W. Jones	1867–'68
The Plains	John Pickett	1859–'60
Winchester	J. W. Marvin	1852–'61
		1859–'61
Wytheville	W. D. Roedel	1861
Wytheville	Howard Shriver	1865–'66
Wytheville	Rev. Jas. A. Brown	1868
WASHINGTON TERRITORY.		
Fort Colville	Capt. Hague	1860–'61
Fort Steilacoom	David Walker, M. D.	1863–'64
Fort Vancouver	Dr. Barnes	1859
Neeah Bay	James G. Swan	1862–'66
Neeah Bay	Alexander Sampson	1867
Port Townsend	S. S. Bulkley	1867–'68
WEST VIRGINIA.		
Ashland	Charles L. Roffo	1865–'68
Burning Springs	Robert H. Bliven	1867–'68
Capon Bridge	J. J. Offutt, M. D.	1857
Crackwhip	D. H. Ellis	1856–'57
Grafton	D. W. H. Sharp	1867–'68
Hampshire county	S. J. Stamps	1868
Harper's Ferry	L. J. Bell	1860
Huntersville	Wm. Skeen	1851–'56
Kanawha	David L. Ruffner	1856–'57
Kanawha	James E. Kendall	1858
		1860–'61
Kanawha Salines	W. C. Reynolds	1858–'59
Lewisburg	Dr. Wm. N. Patton	1851–'52
Lewisburg	Dr. Thos. Patton	1853–'57
Lewisburg	Thos. Patton and J. W. Stalmaker.	1858
Lewisburg	J. W. Stalmaker	1859–'61
New Creek Station	Hendricks Clark	1856–'65
Point Pleasant	W. R. Boyers	1858
Romney	Marshall McDonald	1852
Romney	W. H. McDowell	1866–'68
Sistersville	Enoch D. Johnson	1857–'58
Wardensville	D. H. Ellis	1855
		1859–'61
Wellsburg	B. D. Sanders	1859–'60
Weston	Benjamin Owen	1868
West Union	W. C. Quincy	1855–'56
Wheeling	* Geo. P. Lockwood	1859–'60
Wirt	Josiah W. Hoff	1856–'58
WISCONSIN.		
Appleton	Prof. R. Z. Mason	1856–'61
Appleton	John Hicks	1867
Appleton	Dr. M. J. E. Hurlburt	1867
Appleton	Prof. J. C. Foye	1867–'68
Ashland	Edwin Ellis	1862
Aztalan	James C. Brayton	1849–'52
Baraboo	Dr. B. F. Mills	1849–'52
Baraboo	M. C. Waite	1864–'68
Bay City	Edwin Ellis	1857–'58
Bayfield	Harvey J. Nourse	1858–'59
Bayfield	Andrew Tate	1867–'68
Bellefontaine	Thomas Gay	1851–'54
Beloit	Prof. S. P. Lathrop	1849–'54
Beloit	J. McQuigg and W. Porter.	1854
Beloit	Prof. Wm. Porter	1855–'60
Beloit	Prof. Henry S. Kelsey	1861–'62
Beloit	Henry D. Porter	1863–'67
Black River Falls	Emil Hauser	1859
Brighton	George Mathews	1862–'63
Burlington	D. Matthews	1859
Burlington	D. and G. Mattbews	1860
Burlington	George Mathews	1861
Caldwell Prairie	S. Armstrong	1860–'61
Cascade Valley	Samuel R. Solbert	1856
Ceresco	Miss M. E. Baker	1854–'55
Dartford	M. H. Towers	1861–'62
Delafield	Prof. A. W. Clark	1859–'60
Delafield	Chas. W. Kelly	1861–'63
Delavan	Levens Eddy	1864–'67
Edgerton	Henry J. Shintz	1867–'68
Emerald Grove	Orrin Dinsmore	1849–'52
Embarras	J. Everett Bend	1864
		1866–'68
Falls of St. Croix	M. T. W. Chandler	1857
Falls of St. Croix	Wm. M. Blanding	1858
Galesville	Wm. Gale	1867–'68

List of Smithsonian meteorological stations and observers—Continued.

Name of station.	Name of observer.	Years of observations	Name of station.	Name of observer.	Years of observations.
WIS.—Continued.			WIS.—Continued.		
Geneva	Wm. H. Whiting	1863–'68	New London	J. Everett Breed	1857–'58
Green Bay	Col. D. Underwood	1859	Norway	John E. Himoe	1855–'57
Green Bay	Frederick Deckner	1864–'65	Odanah	Edwin Ellis, M. D.	1863–'66
Green Lake	C. F. Pomeroy	1851–'52	Otsego	L. H. Doyle	1859–'60
Hartford	Judge Hopewell Cox	1859–'62	Pardeeville	S. Armstrong	1859–'60
Hingham	John De Lyser	1867–'68	Platteville	Dr. J. L. Pickard	1851–'59
Hudson	G. F. Livingston	1854	Plattoville	A. K. Johnson	1859–'60
Janesville	J. F. Willard	1853–'58	Plymouth	G. Moeller	1865–'68
Janesville	Geo. J. Kellogg	1859	Prescott	Spencer L. Hiller	1857
Janesville	Dr. Clark G. Pease	1860–'61	Racine	Rev. Roswell Park	1856
Janesville	Daniel Strunk	1862	Racine	W. J. Durham	1856–'58
Kenosha	Rev. John Gridley	1851–'52	Racloo	Hiland W. Phelps	1860–'61
		1857–'63	Ripon	Prof. W. H. Ward	1865–'66
Kilbourn City	James H. Bell	1860–'62	Rocky Run	W. W. Curtis	1859–'68
Lake Mills	Isaac Atwood	1859–'62	Rural	R. H. Struthers	1860–'61
Lebanon	J. C. Hicks	1861	Southport	Rev. John Gridley	1849
Liod	R. H. Struthers	1858	Summit	Edward S. Spencer	1851–'54
Madison	Prof. S. H. Carpenter.	1853	Superior	Wm. H. Newton and L. Washington.	1855
Madison	S. H. Carpenter and J. W. Sterling.	1854	Superior	L. and R. Washington, and C. Loring, jr.	1856
Madison	A. Schue, M. D.	1856–'58	Superior	Wm. Mann	1859–'63
Madison	Prof. J. W. Sterling	1856–'59	Superior	G. R. Stuntz and E. H. Bly.	1859–'63
		1863–'65			
Madison	J. Jennings	1860			
Madison	Prof. J. W. Sterling and S. P. Clarke.	1860	Waterford	S. Armstrong	1863
			Watertown	William Ayres	1852
Madison	Prof. J. W. Sterling and W. Fellows.	1861–'62	Waukesha	Prof. S. A. Bean	1853–'56
					1858–'59
Manitowoc	Jacob Lüps	1857–'68	Waukesha	Prof. S. A. Bean and L. C. Slye, M. D.	1857
Menasha	Col. D. Underwood	1857–'58			
Milwaukee	I. A. Lapham	1849–'52	Waupacca	J. Everett Breed	1856, '65
		1854	Waupacca	H. C. Mend	1863–'68
		1857–'68	Waupaca	C. D. Webster	1867
Milwaukee	Carl Winkler, M. D.	1854–'67	Wausau	W. A. Gordon, M. D	1859–'60
Milwaukee	F. C. Pomeroy	1855–'59	Weyauwega	Melzar Parker	1860–'61
Milwaukee	Prof. E. P. Larkin	1859–'61	Weyauwega	William Woods	1861–'64
Mosinee	J. S. Pashley	1859	Weyauwega	John C. Hicks	1866
Mount Morris	Wm. F. Horsford	1858	Weyauwega	* Dr. Jas. Matthews	1866
New Holstein	Fordinand Hachez	1865	Whittlesey	Edwin Ellis, M. D.	1859–'60
New Lisbon	John L. Dunogan	1867–'68			

Alphabetical list of meteorological observers of the Smithsonian Institution, up to the end of the year 1868.

Name.	State.	Name.	State.
Abbe, Cleveland	Michigan.	Astrop, R. F	Virginia.
Abbott, M	Pennsylvania.	Atkins, Rev. L. S	Ohio.
Abell, B. F	Ohio.	Atkinson, George A	Oregon.
Abell, J. Ralls	Virginia.	Atkinson, William A	Iowa.
Abert, Major J. W	South Carolina.	Atwater, H. H	Pennsylvania.
Abert, Thayer	Florida.	Atwood, Isaac	Wisconsin.
Acadia College	Nova Scotia.	Anbier, Rev. J. M	New York.
Adams, E. L	Massachusetts.	Anstin, W. W	Indiana.
Adams, Prof. E. W	North Carolina.	Avery, Charles A	New York.
Adams, I. R	New York.	Ayres, W	Wisconsin.
Adams, J F	Virginia.	Ayres, Dr. W. O	California.
Adams, J. F	Georgia.	*Babcock, A. J	Illinois.
Adams, Jno. W	Maine.	Babcock, Dr. B. F	Minnesota.
Adams, W. H	Illinois.	Babcock, E	Illinois.
Adams, W. P	New York.	Babcock, E	Iowa.
Agnew, J. C	Missouri.	Bachelder, F. L	Florida.
Agricultural College	Kansas.	Bachelder, J	Massachusetts.
Alba, E. M	New York.	Bacon, D. G	Kansas.
Alcott, W. P	Massachusetts.	Bacon, E. E	Illinois.
Aldrich, T. H	Pennsylvania.	Bacon, Frank M	Michigan.
Aldrich, Verry	Illinois.	Bacon, William	Massachusetts.
Alexander, Arch	New Jersey.	Baer, Miss H. M	Maryland.
Alexander, Captain R. E	Bermuda.	Baer, Prof. W	Maryland.
Alexander, J. M	New York.	Bailey, James B	Florida.
Alison, H. L	Alabama.	Bailey, S. S	Missouri.
Allen, Edwin	New Jersey.	Bailey, Thomas	Massachusetts.
Allen, Prof. E. A. H	New York.	Baird, John H	Pennsylvania.
Allen, Frederick	Ohio.	Baird, Prof. S. F	Pennsylvania.
Allen, George D	Florida.	Baker, Frank	Illinois.
Allen, Prof. G. N	Ohio.	Baker, J. C	Vt. & Canada.
Allen, James, jr	Michigan.	Baker, Miss M. E	Wisconsin.
Allen, J. P	Nebraska.	Baker, N. T	Illinois.
Allen, W. D	New York.	Baker, William E	Pennsylvania.
Allin, Lucius C	Massachusetts.	Baldwin, Dr. A. S	Florida.
Allis, Melvin H	Texas.	Baldwin, Elmer	Illinois.
Allison, Jesse	Illinois.	Ball, Miss Ida E	Iowa.
Allison, Thomas A	North Carolina.	Ball, Dr. J. E	Iowa.
Alsop, Samuel	Pennsylvania.	Ball, James H	New York.
Alter, Dr. D	Pennsylvania.	Ballon, N. E	Illinois.
Alvord, D. S	Ohio.	Bambach, Dr. G	Ohio.
Ammen, J	Ohio.	Bancroft, Rev. C. F. P	Tennessee.
Anderson, C. F	Minnesota.	Bandelier, Adolphus F., jr.	Illinois.
Anderson, H. H	Indiana.	Bannister, H. M	Alaska Ter.
Anderson, Dr. James	Georgia.	Barhage, Joshua C	Kentucky.
Anderson, W. H	Indiana.	Barher, Prof. G. M	Ohio.
Andrews, G. P	Michigan.	Barker, Thomas M	Alabama.
Andrews, Prof. J. W	Ohio.	Barlow, Dennis	Arkansas.
Andrews, Seth L	Michigan.	Barnard, Alonzo	Minnesota.
Andrus, W. C	Florida.	Barnard, A. D	Oregon.
Angell, B. D	Indiana.	Barnes, C	Indiana.
Anthonioz, B. F	Louisiana.	Barnes, Dr.	Washington Ter
Anthony, Newton	Ohio.	Barney, Charles R	Tennessee.
Appleyard, John	Virginia.	Barratt, Rev. J. P	South Carolina.
Arden, Thos. B	New York.	Barrett, James	Pennsylvania.
Armstrong, M. K	Dakota Ter.	Barrows, A. C	Ohio.
Armstrong, S	Wisconsin.	Barrows, G. B	Maine.
Arnold, E. G	Rhode Island.	Barrows, N	Massachusetts.
Arnold, James B	Bermudas.	Barrows, Storrs	New York.
Arnold, Mrs. J. T	Georgia.	Bartlett, E. B	New York.
Astron. Observatory, Williams College	Massachusetts.	Bartlett, Isaac	Indiana.
		Bartlett, Joshua	Maine.

*Deceased.

Alphabetical list of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
*Barton, Dr. E. H.	S. Car. and La.	Bly, E. H	Wisconsin.
Bassett, G. R	Illinois.	Board of Trade	Nova Scotia.
Batchelder, F. L.	Florida.	Boardman, G. A	Florida.
Baxter, Miss E	Texas.	Boerner, C. G	Indiana.
Beal, Dexter	Iowa.	Boettner, Gustave A	Illinois.
Beal, W. W	Iowa.	Bogert, W. S.	Florida.
Beaman, Carlisle D	Iowa.	Bond, Isaac	Maryland.
Bean, Dr. James B	Fla. and Tenn.	*Bond, W. C	Massachusetts.
Bean, Prof. S. A	Wisconsin.	Bosworth, Prof. R. S	Ohio.
Beans, Thomas J	New Jersey.	Boucher, W. K	California.
Beardsley, L. A	New York.	Bowon, Miss Anna M. J	Kansas.
Beatty, O	Kentucky.	Bowen, J. S	Kansas.
Beauchamp, W. M.	New York.	Bowen, Wm. F	Ohio.
Beckwith, E. W	Mississippi.	Bowles, Dr. S. B	Missouri.
Beckwith, Dr. T. F	Virginia.	Bowlsby, G. W	Michigan.
Beckwith, W.	Kansas.	Bowman. E. H.	Illinois.
Beecher, Michael	Ohio.	Bowman, John	New York.
Behmer, Frederick	Missouri.	Boyd, S. T	Ohio.
Belcher, W. C.	California.	Boyers, W. R.	Pennsylvania.
Belfield H. H	Iowa.	Boyle, C. R	Iowa.
Bell, Miss E. M. A	Illinois.	Brackett, G. E.	Maine.
Bell, Jacob E.	Maryland.	Brayton, Jas. C	Wisconsin.
Bell, James H	Wisconsin.	Brayton, Milton	Sombrero Isl'd.
Bell, J. J	Maine.	Breckenstein, L. C	Virginia.
Bell, Louis	New Hampshire.	Breed, J. Everett	N. Y. and Wis.
Bell, L. J	Virginia.	Breed, M. A	Illinois.
Bell, Lewis J	Maryland.	Brendel, Dr. E.	Illinois.
Bell, Hon. S. N	New Hampshire.	Brendel, Dr. F.	Illinois.
Benagh, George	Alabama.	Brewer, Rev. Fisk P	North Carolina.
Benner, J. F	Ohio.	Brewer, F. A	Massachusetts.
Bennett, Henry	Ohio.	Brewster, Alfred	New Hampshire.
Bennett, Sarah E	Ohio.	Brewster, Wm., M. D.	Pennsylvania.
Benton, F. A	Ohio.	Brickenstein, Rev. H. H.	Illinois.
Berendt, G	Mexico.	Brinkerhoff, G. M	Illinois.
Berger, M. L	Massachusetts.	Briggs, E. L.	Iowa.
Berky, W. H	Kansas.	Brightman, J. C	Texas.
Berthoud, E. L.	Ky., Kas., & Col.	Brooks, Rev. Jabez	Minnesota.
Betts, Charles	Michigan.	Brooks, Hon. J	Massachusetts.
Bickford, Calvin	Maine.	Brooks, Wm	New Jersey.
Bidwell, Dr. E. C.	Iowa and Ohio.	Brookes, Samuel	Illinois.
Binkerd, J. S	Ohio.	Brown, Branch	New Hampshire.
Birney, James G.	Michigan.	Brown, B. G.	New Hampshire
Bixby, A. H	N.H., Ky., & Ind.	Brown, E. E.	Maine.
Bixby, J. H	Massachusetts.	Brown, G. W	Kansas.
Blackman, W. J. R.	Kansas.	Brown, H. H	Kansas.
Blackwell, Thomas	Canada.	Brown, James	Texas.
Blackwell, W. H	Arkansas.	Brown, Rev. J. J.	New York.
Blake, H	Indiana.	Brown, J. W	Illinois.
Blake, J. R.	Tennessee.	Brown, N. W.	Massachusetts.
*Blaker, Dr. G. H.	Tenn. and Mich.	Brown, Prof. P. P	Illinois.
Blakeslee, Rev. S. V	California.	Brown, P. P.	Ind. Ter.
Blanchard, Orestes A	Illinois.	*Brown, Samuel	Pennsylvania.
Blanding, William M	Wisconsin.	Brown, W. B. G	New Hampshire
Blewitt, Rev. W	Georgia.	Browne, J. H	Texas.
Bliss, George	Vermont.	Browne, N. F. D	Virginia.
Bliss, L. W	Vermont.	Brown, O. H	Kansas.
Bliven, Robert H	West Virginia.	Bruckart, H. G	Pennsylvania.
Blodgett, Dr. A. C.	Pennsylvania.	Brugger, S	Pennsylvania.
Blodget, Lorin	Pennsylvania.	Bryant, A. F	Iowa.
Blodget, W. O	Pennsylvania.	Bryant, C. H	Illinois.
Bloodgood, S. De Witt	New York.	Buck, Rufus	Maine.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
*Buckland, D	Vermont.	Chapman, J. P	New York.
Buckner, Rev. H. F	Arkansas.	Chapman, N. A	Ohio.
Bnlkeley, S. S	Wash. Ter.	Chappelsmith, J	Indiana.
Bullard, Ransom	Michigan.	Chase, Arthur	New Hampshire.
Bnller, E. A	Maine.	Chase, Dr. Charles	New Hampshire.
Bnllock, J. T	Indiana.	Chase. Cornelius	New York.
Bullock, Thomas	Utah.	Chase, C. Thornton	New York.
Burgon, G. A	Utah.	Chase, Milton	Michigan.
Bnrras, O	Ohio.	Chase, T	Ohio.
Burrell, J. I	Pennsylvania.	Cheney, W	Minnesota.
Bnrris, Dr. Robert	Arkansas.	Chickering, J. W	New York.
Burroughs, R	Indiana.	Chickering, Rev. J. W	Vermont.
Burt, Henry M	Nebraska.	Child, Dr. A. L	Nebraska.
Bnrton. John	Delaware.	Child, Miss J. E	Nebraska.
Bush, Rev. Alva	Iowa.	Childs, E. W	Ohio.
Bnssing, D. S	New York.	Chorpenning, Dr. F	Pennsylvania.
Bussing, J. W	New York.	Christian, Johu	Missouri.
Bnttenfield, W. W	Indiana.	Clark, Prof. A. G.	Pennsylvania.
Butterfield, Mrs	Indiana.	Clark, Prof. A. W	Maryl'd & Wis.
Byers, Dr. Robert	Missouri.	Clark, Dr. D	Michigan.
Byers, S. M	Minnesota.	Clark, Sereno	New York.
Byers, William N	Nebraska.	Clark, Hendricks	West Virginia.
Byram, E. N	New York.	Clark, Thomas	Minnesota.
Byrne, Arthur M	Illinois.	Clark, W. P	Ohio.
Calder, J. G	Bermudas.	Clarke, John	Ohio.
Caldwell, John H	Massachusetts.	Clarke, J. T	Virginia.
Caldwell, Johu T	Missouri.	Clarke, Lawrence, jr	Hud. Bay Ter.
Caldwell, R. H	Kentncky.	Clarke, Mrs. Lawrence	Hud. Bay Ter.
Calhoun, P. B	Tennessee.	Clarkson, Rev. D	Kansas.
Calloway, J. W	North Carolina.	Cleland, Rev. T. H	Kent'y & Miss.
Camp, Benjamin F	Georgia.	Clement, John, jr	New Jersey.
Camp, E. P	Kansas.	Clough, J. B	Minnesota.
Campbell, J	Missouri.	Cockbnrn, S	Honduras.
Campbell, Dr. W. M	Michigan.	Cobb, M. H	Pennsylvania.
Canfield, Dr. C. A	California.	Cobb, M. H	Connecticut.
Cantril, J. E	Illinois.	Cobbs, Rev. R. A	Alabama.
Canndas, Ant	Guatemala.	Cobleigh, Prof. N. E.	Illinois.
Capen, E	Illinois.	Coffin, Prof. J. H	Pennsylvania.
Carey, Daniel	Illinois.	Coffin, Matthew	Michigan.
Carll, Albert G	New York.	Coffin, Selden J	Pennsylvania.
*Carothers, A. G	Bahamas.	Coffin, Prof. William	Illinois.
Carpenter, B	Iowa.	Cofrau, L. R	Maryland.
Carpenter, Prof. S. H	Wisconsin.	Colburn, Ed	Ohio.
Carpenter, S. O	New York.	Colby, Alfred	New Hampshire.
Carpenter, T	South Carolina.	Colby, E. P	New Hampshire.
Carter, J. H	Louisiana.	Colby, J. K	Vermont.
Carter, Rev. J. P	Maryland.	Cole, Barker	New Jersey.
Carter, Prof. P	Ohio.	Cole, E. C	New Jersey.
Carter, Dr. Robert T	Tennessee.	Coleman, J. A	Alabama.
Carter, Thomas	North Caroliua.	Collier, Alfred	Massachusetts.
Carver, Rev. E. W	Minnesota.	Collier, D. C	Colorado.
Carver, Dr. R. T	Tennessee.	Collier, Prof. George H	Illinois.
Case, Dr. C. D	Kentucky.	Collin, Prof. Alonzo	Iowa.
Case, Jarvis	Connecticut.	Collins, Rev. Samuel	Indiana.
Caswell, Prof. A	Rhode Island.	Collins, Colonel W. O	Idaho.
Caswell, Rev. R. C	Newfoundland.	Colman, William	Texas.
Cavileer, Chas	Minnesota.	Comings, G. P	Missouri.
Chadbonrne, Prof. P. A	Mass. & Conn.	Comly, John	Pennsylvania.
Chamberlain, J	Iowa.	Conant, Marshall	Massachusetts.
Chandler, Charles Q	Missonri.	Conkling, Thomas J	Missouri.
Chandler, Dr. George	Massachusetts.	Connolly, H	Hud. Bay Ter.
Chandler, M. T. W	Wisconsin.	Cook, E. B	New York.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Cook, Ephr. R	New Jersey.	Darlington, F	Pennsylvania.
Cook, F. W	Pennsylvania.	Dascomb, Professor	Ohio.
Cook, Prof. George H	New Jersey.	Davidson, H. M	Ohio.
Cook, Thomas E., & Sons	Pennsylvania.	Davidson, W	Ohio.
Cook, W. H	Pennsylvania.	Davies, James F	Arkansas.
Cooke, Prof. George	Tennessee.	Davis, Charles	Pennsylvania.
Cooke, R. L	New Jersey.	*Davis, Rev. Dr. Emerson	Massachusetts.
Cooper Female Seminary	Ohio.	Davis, George L. C	Mississippi.
Cooper, Dr. George F	Georgia.	Davis, R. J	Virginia.
Coorlies, J. F	Pennsylvania.	Davis, W. E	Ohio.
*Corey, Henry M	Florida.	Dawson, John L	South Carolina.
Cornette, Rev. A	Alabama.	Dawson, W	Indiana.
Cornish, Rev. J. H	South Carolina.	Day, Theodore	Pennsylvania.
Corse, John M	Iowa.	Day, William	New York.
Corson, Rev. Marcus H	Pennsylvania.	Dayton, E. A	New York.
Cotting, J. M	Georgia.	Dayton, Lewis M	Ohio.
Cotton, Dr. D. B	Ohio.	Dayton, James H	Indiana
Couch, E. D	New Jersey.	Deacon, John C	New Jersey.
Couch, Samuel	Virginia.	Dean, W. H	Pennsylvania.
Cones, Dr. E	Arizona.	Dearing, D. S	Pennsylvania.
Coulter, B. F	Arkansas.	Deckner, Frederick, & Son.	Georgia & Wis.
Covell, J. C	Virginia.	Deem, D	Indiana.
Coventry, W. B	Indiana.	Deering, D. S	Iowa & Penn'a.
Covert, A. B	New York.	De Graffenreid, Dr. W. G.	Texas.
Cowing, Philo	New York.	De Jernett, Dr. R	Texas.
Cox, Judge Hopewell	Wisconsin.	De Lyser, J	Wisconsin.
Craigie, Dr. W	Canada West.	*Delaney, E. M. J	Newfoundland.
Crandall, William H	Rhode Island.	*Delaney, John, jr	Newfoundland.
Crandon, F	Illinois.	Denig, E. T	Nebraska.
Crane, George W	Ohio.	Denison, H. L	Kansas.
Crane, Heber	Michigan.	*Denning, W. H	New York.
Craven, Rev. B	North Carolina.	Dennis, W. C	Florida.
Craven, Thomas J	Delaware.	Desellen, J. N	Ohio.
Crawford, R	Delaware.	*Dewey, Prof. C	New York.
Crawford, W. A	Delaware.	Dewhurst, Rev. E	Me., Mass., & Ct.
Crawford, T. H	Oregon.	De Wyl, N	Missouri.
Cribbs, J. R	Mississippi.	D'Spain, Dr. B. L	Texas.
Crisp, John F	Indiana.	Dickinson, George C	Virginia.
Crisson, J. C	Bahamas.	Dickinson, James P	Iowa.
Crocker, Allen	Kansas.	Dickson, Walter	Hud. Bay Ter.
Crockett, John M	Texas.	Dill, John B	New York.
Croft, Charles	California.	Dille, Israel	Ohio.
Crookham, George L	Ohio.	Dinsmore, H. L	New York.
Crosby, J. B	Michigan.	Dinsmore, O	Wisconsin.
Crozier, Dr. E. S	Indiana.	Doak, S. S	Tennessee.
Crowther, Benjamin	Mexico.	Doak, W. S	Tennessee.
Cumming, S. J	Alabama.	Dodd, Prof. C. M	Indiana.
Cunningham, Miss Ardelia	Ohio.	Dodder, E. L	Pennsylvania.
Cunningham, G. A	Massachusetts.	Dodge, J. W., & Son	Tennessee.
Cunningham, J. D	Texas.	Dodge, Stephen C	Tennessee.
Currier, Alfred O	Michigan.	Dodson, B. D	Missouri.
Curtis, W. W	Wisconsin.	Dole, J. G	Ohio.
Cutler, Prof. E	Connecticut.	Dorat, Dr. Charles	San Salvador.
Cutting, Ephr	California.	Dorsey, S. S	Ohio.
Cutting, Hiram A	Vermont.	Dorweiler, P	Iowa.
Dall, W. H	Alaska Territ'y.	Doten, H	Vermont.
Dalrymple, A. P	Maryland.	Doughty, William H	Georgia.
Dalton, O. D	Missouri.	Doyle, Joseph B	Ohio.
Dana, William D	Maine.	Doyle, L. H	Wisconsin.
Darby, Prof. John	Georgia & Ala.	Draper, Dr. Joseph	Massachusetts.
Darling, L. A	Massachusetts.		

*Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Drew, Dr. F. P	Kansas.	Farnsworth, P. J	Iowa.
Drummond, Rev. J. H	Kansas.	Fauntleroy, H. H	Virginia.
Drysdale, Robert H.	North Carolina.	Featherston, G. W	Arkansas.
Dubois, H. G., jr	Connecticut.	Fellows, H. B	New York.
Dudley, T	Illinois.	Fellows, W	Wisconsin.
Duffield, Dr. E	Missouri.	Felt, C. W., and others	Massachusetts.
Duffield, Rev. Dr. George	Michigan.	Felt, John	New York.
Duffield, Dr. H	Pennsylvania.	Female College, Arkadelphia	Arkansas.
Duncan, Rev. Alexander	Illinois.	Fenderick, E	Pennsylvania.
Dungan, John L	Wisconsin.	Fendler, Aug	Massachusetts.
Dunkum, Mrs. E. S.	California.	Fendler, Aug	Missouri.
Dunkum, W. L	California.	Ferguson, G. F	Florida.
Dunwoody, W. P.	Iowa.	Ferriss, E. J	Ohio.
Durham, W. J	Wisconsin.	Finfrock, J. H	Idaho.
Duttou, J. Russell	Pennsylvania.	Finley, A. J	Iowa.
Eachers, Homer	Pennsylvania.	Finley, H. S	Iowa.
Earle, E. S	South Carolina.	Finley, P. F	Arkansas.
Earle, J. W	New York.	Finley, R. W	Missouri.
Earle, Silas	California.	Fischer, Dr. James C	Ohio.
Easter, Prof. J. D	Georgia.	Fish, Edmund	Kansas.
Eaton, Dr. B. F	Vermont.	* Fish, Lucien	Kansas.
Ebert, S	Pennsylvania.	Fisher, Dr. J. C	Ohio.
Eddy, Levens	Wisconsin.	Fisher, Dr. Galen, M	Florida.
Edgerly, L. G	Illinois.	Fiske, W. M. L	New York.
Edwards, Daniel	New York.	Fitch, Dr. Joseph	Illinois.
Edwards & Miller	Pennsylvania.	Fitzgerald, Rev. F	North Carolina
Edwards, Joseph	Pennsylvania.	Fleming, John	New Jersey.
Edwards, Rev. Dr. Tryon	Connecticut.	Flett, Andrew	Hud. Bay Ter.
Eggert, John	Pennsylvania.	Flint, Prof. W	New York.
Eldridge, Rev. W. V	Illinois.	Flippin, W. B	Arkansas.
Elletson, Job	New York.	Florer, Thomas W	Mississippi.
Ellis, D. H	Massachusetts.	Foote, Elisha	New York.
Ellis, D. H	Virginia.	Folsom, C. A	Mississippi.
Ellis, J. M	Pennsylvania.	Force, N. P	Missouri.
Ellis, Dr. Edwin	Mich. & Wis.	Forey, J. C	Iowa.
Ellis, Dr. W. T	Colorado & Kas.	Forke, A	Texas.
Elliott, Jonathan	St. Domingo.	Forke, J. L	Texas.
Elliott, Prof. J. Boyd	Mississippi.	Foster, J. H	Michigan.
Elliott, J. C	Ohio.	Foster, Robert W	Louisiana.
Elliott, T. A	South Carolina.	Foster, W. L	Alabama.
Ellsworth, J	Illinois.	Foye, Prof. J. C	Wisconsin.
Ellsworth, Lewis	Illinois.	Frantz, Jacob	Pennsylvania.
Ellsworth, M. S	Illinois.	Fraser, James	Ohio.
Elstun, W. J	Indiana.	Fraser, James	Virginia.
Engelhrecht, Lud	Ohio.	Fraser, James B	Ohio.
Engelmann, Dr. George	Missouri.	Freeman, F. N	New Hampshire.
Epperson, W. T	Texas.	Freeman, H. C	Illinois.
Ervendberg, Dr. L. C	Mexico.	Freese, G	Texas.
Ervendberg, T. C.	Texas.	French, Fred. H	Tennessee.
Evans, John	Nebraska.	French, I. S	New Hampshire.
Eveleth, S	Maine.	French, J. B	New Hampshire.
Eveleth, Samuel A	Maine.	French, J. R	New York.
Everett, Franklin	Michigan.	Frey, Samuel C	Ohio.
Ewing, J. M	Texas.	Friedrich, Otto	Texas.
Eyler, Rev. D. J	Pennsylvania.	Friel, P	Pennsylvania.
Eyster, D	Pennsylvania.	Fries, G. W	New York.
Fairall, H. H	Iowa.	Fritts, J. S	New Jersey.
Fairchild, Prof. J. H	Ohio.	Frombes, Prof. Oliver S	California.
Fairchild, John P	New York.	Frost, Prof. A	New Jersey.
Fairbanks, F	Vermont.	Frost, C. C	Vermont.
Fairbanks, J. P	Vermont.	Frost, Colonel E. C	New York.
Fallon, John	Massachusetts.		

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Fry, Lieutenant Joseph	Florida.	Grant, C. W	Illinois.
Fuller, Dr. E. N	South Carolina.	Grant, Miss Ellen	Illinois.
Fuller, R. M	New York.	Grant, J	Illinois.
Fuller, W. G	Ohio.	Grant, Dr. W. T	Georgia.
Gaffney, J. O	Texas.	Grape, George S	Maryland.
Gaines, Rev. A. G	Maine.	Grathwohl, J	Pennsylvania.
Gale, W	Wisconsin.	Grave, Mary A	Minnesota.
Gamble, J. W	Ohio.	Green, A. R	Mississippi.
Gantt, Dr. W. H	Texas.	Greene, Prof. Dascom	New York.
Gardiner, James	Texas.	Gregory, S. O	New York.
Gardiner, J. H	New York.	Gridley, Rev. J	Wisconsin.
Gardiner, R. H	Maine.	Griest, John	Indiana.
* Gardiner, Hon. R. H	Maine.	Griest, Miss M	Indiana.
Garland, J. G	Maine.	Griffing, Henry	Illinois.
Garland, Samuel G	Bahamas.	Griffith, R. H	Michigan.
Garrison, O. E	Minnesota.	Grinnoll, J	Kentucky.
Garvin, Dr. P. C	Florida.	Griswold, L	Tennessee.
Gary, Jacob S	New Jersey.	Griswold, T. L	Tennessee.
Gay, Thomas	Wisconsin.	Groesbeck, Mrs. E. W	Kansas.
Gay, V. P	Illinois.	Groff, T. Louis	Illinois.
Gibbes, Prof. L. R	South Carolina.	Groneweg, L	Ohio.
Gibbon, Lardner	Florida.	Guest, W. E	New York.
Gibbons, H	California.	Gunn, Donald	Hud. Bay Ter.
Gibbons, J. S	New York.	Guptill, G. W	Maine.
Gibbs, T	Texas.	Haas, Henry	New York.
Gibson, H	Nebraska.	Habersham, S. E	Georgia.
Gibson, R. T	Georgia.	Hachez, Ferd	Wisconsin.
Giddings, Rev. George B	Illinois.	Hagan, W. E	Virginia.
Gidley, I. M	Iowa.	Hagensick, J. M	Iowa.
Gifford, B. R	Louisiana.	Hague, Captain	Washington Ter
Gifford, R. R	Massachusetts.	Hahn, Charles	Pennsylvania.
Giles, F. W	Kansas.	Haines, John	Indiana.
Gill, Joseph H	Illinois.	Haines, William	Georgia.
Gillingham, W	Maryland.	Hall, Dr. A	Canada.
Gilliss, Charles J	Massachusetts.	Hall, Joel	Illinois.
Gilman, Stephen	Maine.	Hall, Joseph H	New Hampshire
Gilman, W. H	Kansas.	Hall, S. W	Maine.
Gilman, W. S., jr	New York.	Hallowell, Benjamin	Virginia.
Gilmore, M	Ohio.	Hamaker, Marion F	Missouri.
Gilmour, A. H. J	Canada.	Hamilton, Prof. J	Tennessee.
Glasco, J. M	Texas.	Hamilton, Captain W	Bahamas.
Glenn, J. M	Texas.	Hamilton, Rev. W	Nebraska.
Glennie, Rev. Alex	South Carolina.	Hamilton, W. H	North Carolina.
Glover, Ell S	Georgia.	Hammitt, J. W	Ohio.
Goff, Mrs. M. A	Michigan.	Hampton, W. C	Ohio.
Gold, T. S	Connecticut.	Hanan, B. P	Missouri.
Goldsmith, E	Tennessee.	Hance, Ebenezer	Pennsylvania.
Goodman, W. R	Maryland.	Hanna, G. B	Massachusetts.
Goodnow, I. T	Kansas.	Hannaford, E	Ohio.
Gordon, Robert	California.	Hanscom, R. F	New Hampshire.
Gordon, Dr. W. A	Wisconsin.	Haushew, Henry E	Maryland.
Gorton, J. S	New York.	Harding, Colonel Horace	Alabama.
Goss, B. F	Kansas.	Hardy, H. F	Arkansas.
Goss, George C	Iowa.	Hardy, Dr. J. F. E	North Carolina.
Goss, W. K	Iowa.	Harkness, W	New York.
Gould, Lewis A	California.	Harper, G. W	Ohio.
Gould, M	Maine.	Harper, Prof. L	New Jersey.
Graham, J	New York.	Harper, Prof. L	Mississippi.
Graham, Paul	Arkansas.	Harris, A. J	Alabama.
Grant, Benjamin	Pennsylvania.	Harris, Dr. J. O	Illinois.
Grant, Charles	Georgia.	Harris, R	Tennessee.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Harrison, B. F	Connecticnt.	Hollenbeck, F	Ohio.
Hart, J. H	New York.	Holley, Benj. F	Alabama.
Hartt, C. F	Nova Scotia.	Hollingworth, G. W	Kansas.
Harvey, J. C	Pennsylvania.	Hollister, Dr. J	Michigan.
Haskin, W. L	New York.	Holmes, D. J	Massachusetts.
Hastings, J	Pennsylvania.	Holmes, E. S	New York.
Haswell, Rev. J. R	New York.	Holmes, Dr. E. S	Michigan.
Hatch, A. L	Mississippi.	Holmes, J. C	Michigan.
Hatch, Dr. F. W	California.	Holmes, Thomas	Indiana.
Hatch, H	Mississippi.	Holston, Dr. J. G. F	Ohio.
Hatch, J	New Hampshire.	Holt, Rev. Jos. W	Minnesota.
Hatfield, Jos. C	Ohio.	Holt, William	Illinois.
Hanser, Emil	Illinois & Wis.	Hoover, W	Ohio.
Haven, S. F	Massachusetts.	Hopkins, Prof. A	Massachnsetts.
Hawks, Dr. J. M	Florida.	Hopkins, Rev. Robert	Minnesota.
Hayes, Dr. W. W	California.	Hopkins, Prof. W. F	Maryland.
Hayne, J. B	Bahamas.	Horn, Miss Clotilde	Kansas.
Haywood, Prof. J	Ohio.	Horn, Dr. H. B	Kansas.
Heastou, D. J	Missouri.	Horner, W. H	Missonri.
Heckerman, Rev. H	Pennsylvania.	Horr, Dr. Asa	Iowa.
*Hedges, Urhan D	Delaware.	Horr, Ed. W	Iowa.
Heger, Dr. A	Pennsylvania.	Horsford, William F	Wisconsin.
Heimstreet, J. W	N. Y. and Minn.	Hosmer, A	New York.
Heisely, Dr. J	Pennsylvania.	Hotchkiss, Jed	Virginia.
Helm, Thos. B	Indiana.	Hough, Dr. F. B	New York.
Henderson, W	Alahama.	Houghton, G. S	Penusylvania.
Herrick, F. C	Kentucky.	Houghton, S. W	Tennessee.
Herrick, J. D	Ohio.	Honse, J. C	New York.
Hester, Lient. J. W	Florida.	House, J. Caroll	New York.
Heuhner, O. T	Pennsylvania.	Howard, J. S	Arkansas.
Heyser, W., jr	Pennsylvania.	Howe, Edwin	California.
Hibbard, A. A	N. Y. aud Minn.	Howell, R	New York.
Hickok, W. O	Pennsylvania.	Hoyt, Peter L	New Hampshire.
Hicks, John	Wisconsin.	Hudson, Dr. A. T	Iowa.
Hicks, J. C	Wisconsin.	Hnehener, L. R	Pennsylvania.
Hicks, Dr. W. R	North Carolina.	Hnestis, Prof. A. C	Indiana.
Hieto, J. A	Mexico.	Huffaker, S. S	Missonri.
Higgins, Prof. D. F	Nova Scotia.	Hughes, Jno	Pennsylvania.
Higgins, James	Tennessee.	Hull, A. B	Connecticnt.
*Hildreth, S. P	Ohio.	Hunt, Ashley D	Alahama.
Hill, F. G	Ohio.	Hunt, Rev. D	Connecticnt.
Hill, G. D	Dakota.	Hunt, George M	New York.
Hill, L. J	Nebraska.	Hunt, Dr. S. B	New York.
Hillier, Rev. Spencer L	N.Y., Ohio, Wis., and Minn.	Huntingdon, George C	Ohio.
		Hurlhnrt, Dr. M. J. E	Wisconsin.
Himoe, John E	Wisconsin.	Hurlin, Rev. W	New Hampshire.
Himoe, Dr. S. O	Kansas.	Hurtt, F. W	Ohio.
Hindman, S. M. N	Oregon.	Huse, Fredorick J	Illiuois.
Hiscox, G D	Illinois.	Huston, T. A	Alahama.
Hoadley, C. H	Connecticnt.	Hyde, G. A	Mass. and Ohio.
Hobart, Ed. F	Iowa.	Hydo, Mrs. G. A	Ohio.
Hohhs, Chas. M	Indiana.	Hyde, Stephen	New York.
Hohhs, Miss M. A	Indiana.	Hyde, Rev. T. C P	New York.
Hohbs, Orrin T	Pennsylvania.	Imhoden, J. B	Virginia.
Hohhs, William H	Indiana.	Ingalls, S. Marshall	New York.
Hoff, Dr. Alex. H	Alaska Ter.	Ingalsbee, Grenville M	New York.
Hoff, J. W	Virginia.	Ingersoll, J. D	New York.
Hoffer, Dr. J. R	Pennsylvania.	Ingraham & Hyland	Kansas.
Hoffer, Mary E	Pennsylvania.	Ingram, Dr. J	Ohio and N. J.
Holcomb, A	Massachusetts.	Ironside, R. B	Oregon.
Hollenbeck, D. K	Ohio.	Irvine, Professor S. G	Ohio.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Ives, Edward R.	Florida.	*Kennicott, R.	Alaska & Hud. Bay Territory.
Ives, William	New York.		
Jackman, A	Vermont.	Kent, Benjamin	Massachusetts.
Jackson, Dr. A. W	Louisiana.	Kerlin, Dr. I. N	Pennsylvania.
Jackson, John	Pennsylvania.	Kerr, Prof. W. C	North Carolina.
Jackson, Samuel X	Virginia.	Kersey, Dr. V	Indiana.
Jacobs, H. E	Pennsylvania.	Kibbe, T. R	California.
Jacobs, Prof. M	Pennsylvania.	Kilgore, W	Minnesota.
Jaeger, H. W	Ohio.	Kilpatrick, Dr. A. R	Louisiana.
James, Miss Anna	Illinois.	King, Mrs. Adelia C	Ohio.
James, Prof. C. S	Pennsylvania.	King's College	Nova Scotia.
*James, Dr. John	Illinois.	Kingsbury, J. H	Pennsylvania.
Janes, C. C	Ohio.	Kirby, D. J	Massachusetts.
Jaque, A	Ohio.	Kirkpatrick, Prof. J. A	Pennsylvania.
Jenkins, John F	New York.	Kirtland, Dr. J. P	Ohio.
Jenkins, J. L	Illinois.	Kizer, W. B	Missouri.
Jennings, J	Wisconsin.	Kluge, E. T	Pennsylvania.
Jennings, Dr. Samuel K	Ala., Texas, and Tenn.	*Kluge, Dr. J. P	New Granada.
		Knaner, J	Indiana.
Jilson, B. C	Tennessee.	Knox, James C	New Hampshire.
Johns, Dr. Montgomery	Maryland.	Knoud, Rev. James	Missouri.
Johnson, A. K	Wisconsin.	Kohler, Edward	Pennsylvania.
Johnson, Enoch D	Virginia & Ohio.	Kohleski, Theo.	Montana.
Johnson, E. W	New York.	Koning, Rev. P. W	Missouri.
Johnson, Joseph	South Carolina.	Kownslar, Miss E	Virginia.
Johnson, Norton	Illinois.	Kownslar, Dr. R	Virginia.
Johnson, R. C	Nevada.	Kridelbaugh, S. H	Iowa.
Johnson, Rev. Samuel	New York.	Kron, F. J	North Carolina.
Johnson, Thomas H	Ohio.	Kummer, E	Pennsylvania.
Johnson, Warren	Maine.	Kunster, H	Illinois.
Johnson, Dr. W. M	North Carolina.	Laighton, Thomas B	New Hampshire.
Johnson, W. W	Montana.	Landon, Anna S	New York.
Johnston, Prof. John	Connecticut.	Landon, Stephen	New York.
Johnston, William M	Mississippi.	Lane, Prof. C. W	Georgia.
Jones, Benjamin W	Virginia.	Lane, John	Michigan.
Jones, C. P	Pennsylvania.	Lane, Moses	New York.
Jones, Prof. Gardner	Indiana.	Langdon, Laurens A	New York.
Jones, Josiah	Maryland.	Langee, Dr. Ignatius	Iowa.
Jones, Silas B	Virginia.	Langguth, J. G., jr	Illinois.
Jones, W. Martin	Canada.	Langworthy, A. Darwin	Illinois.
Jorgenson, C. N	Iowa.	Lapham, Darius	Ohio.
Jourdan, Prof. C. H	Maryland.	Lapham, I. A	Wisconsin.
Joy, Prof. Charles A	New York.	Larkin, Prof. E. P	Wisconsin.
Julien, Alexis A	Antilles.	Larrabee, W. H	Indiana.
Kaler, Frederick	Texas.	Larsh, T. J	Ohio.
Kapp, Ernest	Texas.	Laselle, C. B	Indiana.
Kaucher, William	Missouri.	Laszlo, Charles	Mexico.
Kedzie, Prof. R. C	Michigan.	Lathrop, Prof. S. P	Wisconsin.
Keenan, T. J. R	Mississippi.	Latimer, George	Porto Rico.
Keep, Rev. W. W	Florida.	Lattimore, Prof. S. A	New York.
Kellett, Thomas A	Minnesota.	Lawson, G. W	Dakota.
Kelley, O. H	Minnesota.	Lea, John	Ohio.
Kellogg, F	Texas.	Lear, O. H. P	Missouri.
Kellogg, G. J	Wisconsin.	Learned, Dwight W	Connecticut.
Kellum, A. O	Wisconsin.	Leavenworth, D. C	Connecticut.
Kelly, Charles W	Minnesota.	Lee, Charles A	New York.
Kelsey, Prof. H. S	Wisconsin.	*Lefferts, John	New York.
Kelsey, Kathalo	New York.	Leffman, L	New York.
Kemper, G. W. H	Indiana.	Lefroy, Capt. J. H	Canada.
Kendall, James	Virginia.	*Lehman, Dr. H. M	Montana.
Kendall, John F	New York.	Leonard, Rev. L. W	New Hampshire.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Leonard, W. P	Iowa.	McKee, Rev. C. B	Dist. Col. & Va.
Levings, Chas	Illinois.	McKenzie, J. M	Iowa & Neb.
Lewis, Charles H	Tennessee.	McLain, W. D	Colorado.
Lewis, James	Utah.	McMasters, Professor S. Y.	Ill's and Ken.
Lewis, James	New York.	McMillan, S. B	Ohio.
Lingow, B. G	Missouri.	McMullen, J. F	Minnesota.
Linus, M	New York.	McMore, P. A	New York.
Lippincott, James S	New Jersey.	McNelty, Dr. W. W	Tennessee.
Lippincott, Joseph W	New Jersey.	McNett, E. L	Pennsylvania.
Little, Frank	Michigan.	McQuigg, J	Wisconsin.
Little, J. Thomas	Illinois.	McWilliams, Dr. Alex	Maryland.
Livezay, G. W	Ohio.	Macfarlane, R	Hnd. Bay Ter.
Livings, B. C	Minnesota.	Macgregor, C. J	Canada.
Livingston, G. F	Wisconsin.	Mack, A. W	Massachusetts.
Livingston, Prof. Wm	Illinois.	Mack, E. T	New Jersey.
Lohdell, Mrs. M. J	New York.	Mack, Rev. E. T	New York.
Locke, Samuel	Minnesota.	Mack, Robert C	New Hampshire
Lockhart, James	Hud. Bay Ter.	Mackenzie, J	Hnd. Bay Ter.
*Lockwood, G. P	Virginia.	Mackie, M	New York.
Logan, Dr. T. M	California.	Magee, I	New York.
Loines, Dr. J. P	New York.	Magnetic Observatory	Canada.
Lord, W. G	Maine.	Maguire, Professor J. F	Maryland.
Loring, C	Wisconsin.	Malcolm, W. S	New York.
Longbridge, Dr. J. H	Indiana.	Malden, J. J	Michigan.
Love, Mrs. James	Iowa.	Mallinckrodt, C	Missouri.
Love, Louisa P	Iowa.	Manchester, Geo	Rhode Island.
Lowndes, B. O	Maryland.	Mankard, Mrs. M. J	Louisiana.
Lowrie, J. R	Pennsylvania.	Manley, R. M	Vermont.
Lups, Jacob	Wisconsin.	Mann, Wm	Wisconsin.
Lukins, John F	Ohio.	Mapes, H. H	Michigan.
Lull, James S	Mississippi.	Marcy, Professor O	Illinois.
Lumpkin, W. M	Missouri.	Marks, Corydon	Pennsylvania.
Lumsden, Rev. William	Ohio.	Marlow, Colonel W. B	Jamaica.
*Lunemann, John H	Missouri & Ky.	Marsh, Chas	Vermont.
Lupton, N. T	Alabama.	Marsh, C. A. J	Vermont.
Luther, S. M	Ohio.	Marsh, M. M	Vermont.
Luttrell, James	Colorado.	Marsh, Mrs. M. M	Ohio.
Lynde, C. J	Wisconsin.	Marsh, O. J	Illinois.
Lyons, Curtis J	Massachusetts.	Marsh, Roswell	Ohio.
McAfee, J. R	Georgia.	Marshall, Gregory	Iowa.
McBeth, Miss Sue	Arkansas.	Martin, Dr. Alex	Indiana.
McCarty, H. D	Kansas & Ohio.	Martin, Dr. Geo	Pennsylvania.
*McCary, Robert	Mississippi.	Martin, Dr. G. Alex	Arkansas.
McCary, William	Mississippi.	Martin, K. A	Pennsylvania.
McClung, C. L	Ohio.	Martin, R. A	Delaware.
McComly, Dr. H. A	Texas.	Martin, Dr. Samuel D	Kentucky.
McConnell, E. M	Pennsylvania,	Martin, W	Pennsylvania.
McConnell, Townsend	Iowa.	Martindale, Dr. Jos. C	Pennsylvania.
McCormick, J. O	Maryland.	Martindale, Isaac C	Pennsylvania.
McCormick, William A	Kansas.	Marvin, J. W	Virginia.
McCoy, A. R	Pennsylvania.	Mason, Edgar E	Nebraska.
McCoy, Dr. F	Iowa & Indiana.	Mason, Professor R. Z	Wisconsin.
McCoy, Miss Lizzie	Iowa & Indiana.	Mather, Professor W. W	Ohio.
McCready, Daniel	Iowa.	Mathews, D	Wisconsin.
McDonald, M	Virginia.	Mathews, Geo	Wisconsin.
McDowell, Rev. A	North Carolina.	*Matthews, Dr. J	Wisconsin.
McDowell, W. H	West Virginia.	Mathews, Jos. McD	Ky. and Ohio.
McDowell, W. W	North Carolina.	Mathis, H. C	Kentucky.
McElrath, J. J	Arkansas.	Matthews, H. W	New York.
McElroy, Barnet	Pennsylvania.	*Matthews, Prof. M. M	New York.
McGee, J	Massachusetts.	Mattison, Andrew	Kentucky.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Manld, Dr. D. W	Delaware.	Moore, Jos	Indiana.
Mauncey, Rev. S. W	Minnesota.	Moore, Mahlon	Pennsylvania.
Mauran, Dr. P. B	Florida.	Moore, Dr. S. P	Lonisiana.
Maurice, C. F	New York.	Moore, Dr. W	Missouri.
Maxey, W. F	Missouri	Morehouse, A. W	New York.
Mayer, Professor Alfred M	Md. & Pa.	Morelle, Professor D	North Carolina.
*Mayhew, Royal	Indiana.	Morris, Miss E	New York.
*Meacham H. G	Illinois.	Morris, Professor O. W	New York.
Meacham, S	Illinois.	Morris, O. W	Tennessee.
*Mead, Allen	Iowa.	*Morrison, W. H	Illinois.
Mead, Chauncey	Iowa.	Morse, Geo. M	Massachusetts.
Mead, H. C	Wisconsin.	Morse, J. P	New York.
Mead, Dr. S. B	Illinois.	Moses, J	Nicaragua.
*Mead, Stephen O	Vt. and N. H.	Moss, G. B	Illinois.
*Mead, Dr. Thompson	Illinois.	Moulton, J. P	Maine.
Meehan, J	Pennsylvania.	Moulton, M. M	Iowa.
Meehan, Thos	Pennsylvania.	Moultrie, J. L	Alabama.
Mecker, Ralph E	Illinois.	Mowry, Geo	Peunsylvanla.
Memfield, Geo. C	Indiana.	Moyer, H. C	Pennsylvania.
Meriwether, C	Virginia.	Muhlenberg, F. A., jr	Pennsylvania.
Meriwether, C. J	Virginla.	Muir, Wm	Missouri.
Meriwether, R. T	Alabama.	Muller, Professor R	Pennsylvania.
Merriam, A. M	Massachusetts.	Mulligan, A	New Yoik.
Merriam, A. M	Colorado.	Mulvey, Oliver	Indiana.
Merriam, C. C	New York.	Munfield, Geo. C	Indiana.
Merriam, G. F	Kansas.	Munger, L. F	New York.
Merriam, Sidney A	Massachusetts.	Murch, E M	Kentucky.
Merrick, Thos. B	New Jersey.	Murdoch, G	New Brunswick.
Merrill, Dr. E	La. and Texas.	Mussey, R. D	Massachusetts.
Merrill, Rev. S. H	Maiue.	Myers, J. H	Missouri.
Merritt, John C	New York.	Nash, Rev. J. A	Iowa.
Merwin, Mrs. E. H	Illinois.	Nason, Rev. Elias	N. H. aud Mass.
Messmau, Dr. J	Iowa.	Naturaliste Canadieu	Canada.
Metcalf, H	New York.	Naval Hospital	California.
Metcalf, Dr. John G	Massachusetts.	Naval Hospital	New York.
Meybert, Dr. A. P	Pennsylvania.	Naval Hospital	Massachusetts.
Miles, Thos. H	Kentucky.	Naval Hospital	Pennsylvania.
Military Post	Newfouudland.	Naval Station	New York.
Millard, A. J	Iowa.	Navy Yard	Florida.
Millard, Joseph D	Michigan.	Navy Yard	Peunsylvania.
Miller, C. H	Nebraska.	Navy Yard	Virginia.
Miller, Rev. J	Kentucky.	Navy Yard	Tennessee.
Miller, John H	Kansas.	Neely, E. B	Missouri.
Miller, L. A	Vermont.	Nelson, H. M	Massachusetts.
Milliken, John T	Pennsylvania.	Nelson, Professor J. P	Maryland.
Mills, Dr. B. F	Wisconsin.	Nelson, R. J	Nova Scotia.
Mills, John H	North Carolina.	Nelson, S. A	Massachusetts.
Minick, J. B	Michigan.	Nettleton, A	Virginia.
Mitchell, Dr. R. W	Tennessee.	Newcomb, Guilford S	Massachusetts.
Mitchell, Dr. S. F	Michigan.	Newcomb, J. B	Illinois.
Mitchell, Hon. W	Massachusetts.	Newkirk, R. M	Indiana.
Moeller, G	Wisconsin.	Newton, Rev. Alfred	Ohio.
Moffatt, Professor A. G	Indian Territory.	Newton, John	Florida.
Moke, Dr. Jas. E	Texas.	Newton, W. H	Wisconsin.
Moore, Professor A	Mississippi.	Nichols, C. L	Maine.
Moore, Dr. Alex. P	Arkansas.	Nicholson, Rev. J. J	Alabama.
Moore, Asa P	Maine.	Niell, Thos	Ohio.
Moore, Mrs. Belle	Missouri.	Noll, Arthur B	New Jersey.
Moore, C. R	Virginia.	Normal School	Massachusetts.
Moore, David	Mississippi.	North, Dr. S. B	Alabama.
Moore, Dr. G. F	North Carolina.	Norton, J. H	New York.
Moore, J. A	North Carolina.	Norton, Prof. W. A	Delaware.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Norvell, F	Dakota Territ'y.	Pearson, John	Florida.
Nourse, H. J	Wisconsin.	Peck, Dr. John E	Florida.
Nuttaner, Prof. Frs. J	Virginia.	Peck, Dr. W. R	Ohio.
Oakfield, C. F	Kansas.	Peelor, David	Pennsylvania.
Oakley, Thomas	Mississippi.	Peet, Abraham S	Massachusetts.
Observatory Harvard College	Massachusetts.	Pelzee, George S	South Carolina.
O'Donoghue, John	Illinois.	Pendleton, Dr. E. M	Georgia.
Odell, Dr. B. F	Minn. and Iowa.	Pendleton, P. C	Georgia.
Odell, Fletcher	New Hampshire.	Percival, Dr. Charles F	Alabama.
Offutt, Dr. J. J	Virginia.	Perkins, Capt. A. D	Michigan.
Oficiana Central de Estadistica	Costa Rica.	Perkins, Dr. H. C	Massachusetts.
Olds, Warren	Illinois.	Pernot, Claudius	New York.
Oliver, John	Michigan.	Perrault, Ed	Michigan.
Ormsby, G. S	Ohio.	Perry, Rev. J. B	Mass. and Vt.
Orton, James	Mass.	Perry, W	New Jersey.
Osborne, Dr. T. C	Alabama.	Peters, Adam	Ohio.
Osgood, H. H	Maine.	Peters, H	Indiana.
Owen, Benjamin	West Virginia.	Peters, Thos. M	Alabama.
Owen, Dr. D. D	Indiana.	Pettingill, Waldo	Maine.
Owsley, J. B	Ohio.	Pettingill, W	Ohio.
Packard, Levi S	New York.	Petty, Chas	South Carolina.
*Paddock, James A	Vermont.	Petty, McK	Vermont.
Paine, Charles L	Vermont.	Phelps, H. E	Utah.
Paine, Charles S	Vermont.	Phelps, Highland W	Wisconsin.
Paine, Dr. H. M	New York.	Phelps, Rev. Joshua	Iowa.
Palm, Swante	Texas.	Phelps, R. H	Connecticut.
Palmer, Miss Jerusha R	New Jersey.	Phelps, W. W	Utah.
Pardee, Eugene	Ohio.	Phillips, H	Canada.
Pardee, H. C	Nebraska.	Phillips, Prof. Jas., D. D.	North Carolina.
Park, William K	Virginia.	Phillips, J. H	Ohio.
Park, Rev. Roswell	Wisconsin.	Phillips, R. C	Ohio.
Parker, J. B	Michigan.	Pickard, Dr. J. L	Wisconsin.
Parker, J. D	Maine.	Pickett, John	Virginia.
Parker, John D	Illinois.	Pierce, Warren	Ohio.
Parker, Joseph	Vermont.	Pillsbury, M. A	Ohio.
Parker, Dr. Joseph M	Tennessee.	Pillsbury, Mrs. M. A	Ohio.
Parker, Melzar	Wisconsin.	Pitcher, Dr. Zeno	Michigan.
Parker, Nathan H	Iowa.	Pitman, Charles H	New Hampshire
Parker, Prof. W. H	Vermont.	Pitman, E	Maine.
Parkinson, D. F	California.	Pitman, M	Maine.
Parmelee, Ezra	New York.	Plumb, Dr. Ovid	Connecticut.
Parry, William	New Jersey.	Plummer, Dr. John T	Indiana.
Parsons, B. W	Massachusetts.	Poe, James H	Ohio.
Parsons, L. H	New Jersey.	*Pollard, T. F	Vermont.
Partrick, J. M	New York.	Pollock, Rev. J. E	Missouri.
Parvin, P. G	Iowa.	Pomeroy, F. C	Wisconsin.
Parvin, Prof. Theo. S	Iowa.	Pool, Isaac A	Illinois.
Pashley, J. S	Wisconsin.	Poole, H	Nova Scotia.
Paterson, Rev. Dr. A. B	Minnesota.	Porter, E. D	Delaware.
Patrick, Dr. John J	Illinois.	Porter, Mrs. E. D	Delaware.
Pattison, H. A	Michigan.	Porter, Henry D	Wisconsin.
Patton, Thomas	Virginia.	Porter, Prof. W	Wisconsin.
Patton, Dr. Wm. N	Virginia.	*Posey, Dr. John F	Georgia.
Paxton, J. W	Michigan.	Post Surgeon	Kansas and Cal.
Payne, Dr. J. W	Alabama.	Potter, Dr. A. M	Texas.
Peabody, Prof. S. H	Vermont.	*Potter, C. D	New York.
Peale, Dr. J. B	Pennsylvania.	Potter, G. W	New York.
Pearce, Harrison	Utah.	Potts, Jean G	Virginia.
Pearce, James A., jr	Maryland.	Powel, Samuel	Rhode Island.
		Pratt, Prof. D. J	New York.
		Pratt, George B	Iowa.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Pratt, Dr. J. F	Maine.	Robinson, Rev. E. S	Mississippi.
Prentiss, Dr. H. C	Massachusetts.	Rohy, Charles H.	Virginia.
Prescott, Dr. W	New Hampshire.	Rockwell, Miss Charlotte.	Connecticut.
Preston, Rev. N. O	Kansas.	Rockwell, John A	Georgia.
Prince, Charles	Maine.	Rodman, Samuel	Massachusetts.
Prince, G	Maine.	Roe, J. H	Illinois.
Purdie, John R	Virginia.	Roe, Rev. Sanford W	Con. and N. Y.
Purdot, E	Honduras.	Roedel, W. D	Virginia.
Purmort, N	New Hampshire.	Roffe, C. L	West Virginia.
Quincy, W. C	Virginia.	Rogers, A. P	Ohio.
Race, James A	Missouri.	Rogers, Francis M	New York.
Raffensperger, E. B	Ohio.	Rogers, J. S	Illinois.
Rain, John G	Nebraska.	Rogers, O. P	Illinois.
Ralston, Rev. J. G	Pennsylvania.	Roos, Charles	Minnesota.
Rambo, E. B	Indiana.	Root, Dr. Martin N	Mass. and N.H.
Randall, R. B	California.	Root, Professor O	New York.
Rankin, Colin	H. B. T. & Canada.	Ross, B. R	H. B. Territory.
		Rossean, M. C	Idaho.
Rankin, D. M	Ohio.	Rossiter, Professor G. R	Virginia.
Rankin, James	Connecticut.	Rothrock, William	Tennessee.
Ranlett, E. L	Louisiana.	Ray, G. P	Missouri.
Raser, John Heyl	Pennsylvania	Royal Engineers	Bermudas.
Ravenel, H. W	South Carolina.	Royal Engineers	Nova Scotia.
Ravenel, Thomas P	South Carolina.	Royal Gazette	Bermudas.
Ray, Dr. John D	Kentucky.	Rucker, B. H	Texas.
Ray, L. G	Kentucky.	Ruffin, David L	Virginia.
Rayal, James T	Texas.	Ruffin, Julian C	Virginia.
Raymond, George	Massachusetts.	Ruggles, Homer	Missouri.
Raymond, W. A	Michigan.	Russell, Cyrus H	New York.
Read, D. E	Neb. and Iowa.	Russell, O. F	Arkansas.
Reade, J. M	Tex. & N. Mex.	Rutherford, M	Texas.
Reasure, Dr. F. M	Michigan.	Ryerson, Dr. Thomas	New Jersey.
Redding, Thomas B	Indiana.	Salisbury, Elias O	New York.
Reed, Edwin C	New York.	Samms, Dr. C. C	Ohio.
Reed, Isaiah	Iowa.	Sampson, Alexander	W. Territory.
Reed, Lt. Jos	Pennsylvania.	Sanders, B. O	Virginia.
Reid, Jas. M	Georgia.	Sanford, S	Ohio.
Reid, Dr. Robert K	California.	Sanford, Dr. S. N	Ohio.
Reid, Peter	New York.	Sanger, Dr. W. W	New York.
Reynolds, Henry	Maine.	Sargent, John S	Massachusetts.
Reynolds, J	Arkansas.	Sartorius, Dr. Charles	Mexico.
Reynolds, Lanriston	Maine.	Sartwell, Dr. H. P	New York.
Reynolds, Orrin A	Massachusetts.	Saurman, John W	Pennsylvania.
Reynolds, R. M	Alabama.	Savage, Dr. G. S	Kentucky.
Reynolds, W	Iowa.	Savery, Thomas H	Pennsylvania.
Reynolds, W. C	Virginia.	Saville, J. J	Iowa.
Rhees, Dr. Morgan J	New Jersey.	Sawkins, James G	Jamaica.
Rhoades, Dr. John	Ohio.	Sawyer, George B	N. Hampshire.
Rhodes, W. H. T	Texas.	Sawyer, H. E	N. Hampshire.
Riblet, J. H	Illinois.	Sawyer, Thomas L	Tennessee.
Rice, Frank H	Massachusetts.	Scandlin, Rev. Wm. G	Massachusetts.
Rice, Henry	Massachusetts.	Scarritt, Rev. N	Missouri.
Richards, Thomas	H. B. Ter'y.	Schauber, H. A	New York, Ohio, and Illinois.
Ricksecker, L. E	Pennsylvania.		
Riddell, Prof. W. P	Louisiana.	Scheeper, E. H. A	Iowa.
Riggs, A. L	Minnesota.	Schenck, Dr. W. L	Ohio.
Riggs, Rev. S. R	Minnesota.	Schetterly, Dr. H. R	Michigan.
Riker, Walter H	New York.	Schlegel, Albert	Massachusetts.
Riotte, Hon. C. N	Costa Rica.	Schley, W	Georgia.
Ritchie, James	Massachusetts.	Schmidt, Dr. E. R	New Jersey.
Riter, F. G	Dakota.	Scholefield N	Connecticut.
Rohhius, Dr. James	Massachusetts.	Schriever, Francis	Pennsylvania.
Roberts, D. H	Indiana.	Schne, Dr. A	Wisconsin.
Robinson, Almon	Maine.	Scott, H. B	Florida.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Scott, James	Kansas.	Smith, C. B	Nebraska.
Scott, Samuel	Pennsylvania.	Smith, Dr. C. C	Michigan.
Scovill, H. W	Illinois.	Smith, C. E	Illinois.
Scriba, Victor	Pennsylvania.	Smith, Dr. Carl H	Ohio.
Seabrook, Thomas	Pennsylvania.	Smith, Eli	Maryland.
Seavey, C. C	Georgia.	Smith, Dr. E. A	Massachusetts.
Seibert, Samuel R	Wisconsin.	Smith, E. A, and daughters	New York.
Selby, Henry	Michigan.	Smith, E. L	Massachusetts.
Seltz, Charles	Nebraska.	Smith, Rev. George N	Michigan.
Senior class, Mount Auburn Female Institute	Ohio.	Smith, Dr. George O	Illinois.
Sergeant, John T	New Jersey.	Smith, Haden Patrick	New York.
Seymour, E	Wisconsin.	Smith, Hamilton, jr	Indiana.
Seymour, Dr. E. W	Kansas.	Smith, Henry K	Illinois.
Shackelford, Prof. J	Alabama.	Smith, H. L	Minnesota.
Shaffer, J. M	Iowa.	Smith, Harmon M	Michigan.
Shane, J. D	Kentucky.	Smith, Howard D	Maine.
Sharp, Dr. W. H	West Virginia.	Smith, Isaac H	Illinois.
Shaw, Francis	Massachusetts.	Smith, Dr. J. Bryant	North Carolina.
Shaw, Jos	Ohio.	Smith, J. C	Ohio.
Shaw, M	Kansas.	Smith, J. Edwards	Mississippi.
Sheerer, H. M	New York.	Smith, John M	Missouri.
Sheldon, Daniel	Iowa.	Smith, J. Metcalf	New York.
Sheldon, D. S	Iowa.	Smith, Dr. J. W	New York.
Sheldon, H. A	Vermont.	Smith, Rev. L. M. S	Michigan.
Sheldon, H. C	Rhode Island.	Smith, M. D	California.
Shephard, J. A	Mississippi.	Smith, Mrs. M. D	California.
Shepherd, Smiley	Illinois.	Smith, Dr. N. D	Arkansas.
Sheppard, Benjamin	New Jersey.	Smith, Rufus	New Hampshire
Sheppard, Clarkson	New Jersey.	Smith, Sydney	Iowa.
Sheppard, Rev. J. A	N. C. and Ala.	Smith, Rev. S. U	Alabama.
Sheppard, Miss R. C	New Jersey.	Smith, Rev. W	Pennsylvania.
Sherman, Rev. D. H	Illinois.	Smurr, Dr. T. A	Ohio.
Shields, J. H	Alabama.	Smyser, Dr. B. R	Pennsylvania.
Shields, Rev. R	Ohio.	Smyser, Dr. H	Pennsylvania.
Shintz, H. J	Wisconsin.	Snell, Prof. E. S	Massachusetts.
Shoemaker, J. G	Kansas.	Snow, Prof. F. H	Kansas.
Shortwell, D. F	Minnesota.	Snyder, James A	Oregon.
Shotwell, Samuel L	Illinois.	Soule, Prof. W	New York.
Shreve, Charles R	Ohio.	Soule, W. L. G	Kansas.
Shriver, Howard	Va. and N. J.	Southworth, N. C	Michigan.
Shuman, Bruno	Texas.	Spaulding, Dr. Abiram	Illinois.
Shumard, G. G	Texas.	Spaulding, S. C	Illinois.
Sias, Professor Solomon	Tex. and N. Y.	Spates, Samuel	Minnesota.
Siber, Audr. L	Utah.	Speer, Dr. Alex. M	Pennsylvania.
Sibley, P. B	Missouri.	Spencer, Miss Anna	Pennsylvania.
Simpson, B. F	New Jersey.	Spencer, Edward E	Virginia.
Simpson, F. T	Georgia.	Spencer, Rev. D. B	Minnesota.
Sisson, Rodman	Pennsylvania.	Spencer, E. S	Wisconsin.
Skeen, W	Virginia.	Spencer, W. C	Illinois.
Slade, Frederick J	New York.	Spera, W. H	Pennsylvania.
Slaven, J. B	California.	Sperry, M	Ohio.
Slaven, James	Virginia.	Spooner, E	Ohio.
Sloane, Prof. J. R. W	Ohio.	Spooner, Dr. S	New York.
Slye, L. C	Wisconsin.	Spratt, Dr. W. W	Indiana & Ohio.
Smallwood, Dr. Charles	Canada.	Springer, Rev. Fr	Arkansas.
Small, F. A	Maine.	Squier, H	Michigan.
Smedley, John H	Pennsylvania.	Stagg, T. G	Maryland.
Smith, A. C	Minnesota.	Stalnaker, J. W	Virginia.
Smith, A. M	Bahamas.	Stanford, Colonel J. R	Georgia.
*Smith, Prof. A. W	Connecticut.	Stanton, Fred. J	Colorado.
Smith, Prof. B. Wilson	Iowa.	Stayman, Dr. J	Kansas.
		Stebbins, George H	Oregon.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Stebbins, Richard	Iowa.	Taylor, Dr. M. K	Michigan.
Steed, F	Iowa.	Taylor, Rev. R. T	Pennsylvania.
Steele, Hon. Ang	Florida.	Teele, Rev. A. K	La. and Mass.
Steele, George E	Michigan.	Tenbrock, J. W	Indiana.
Steiner, Dr. Lewis F	Maryland.	Terry, Charles C	Massachusetts.
Stephens, Prof. A. M	Minnesota.	Tew, Captain C. C	South Carolina.
Stephens, J. A	Missouri.	Thatcher, A. E	New York.
Stephenson, Rev. James	Maryland.	Thickstun, T. F	Minnesota.
Sterling, J. W	Wisconsin.	Thickstun, T. F	Pennsylvania.
Stern, Jacob T	Iowa.	Thomas, Mrs. W. S	Illinois.
Sternbergh, W. H	New Granada.	Thompson, A. H	Illinois.
Stevens, Henuell	Texas.	Thompson, Rev. D	Ohio.
Stevens, Dr. J. L	Maine.	Thompson, D. P	Vermont.
Stevens, Linus	New Hampshire.	Thompson, Rev. E	Ohio.
Stevens, R. P	Pennsylvania.	Thompson, E. P	Illinois.
Stewart, Prof. A. P	Tennessee.	Thompson, George W	New Jersey.
Stewart, F. L	Pennsylvania.	Thompson, H	Louisiana.
Stewart, Thomas H	Pennsylvania.	Thompson, Prof. H. A	Ohio.
Stewart, W. M	Tennessee.	Thompson, Mrs. Phœbe	Vermont.
Stockwell, George A	Michigan.	Thompson, R. O	Nebraska.
Stokes, H. A	New Jersey.	Thompson, Prof. Zadok	Vermont.
Stokes, William A	Pennsylvania.	Thomson, Prof. S. H	Indiana.
Stone, Isaac	Michigan.	Thornton, Miss E. E	New Jersey.
Stouffer, And	Minnesota.	Thornton, Dr. S. C	New Jersey.
Stowell, T. B	Kansas.	Thorp, Henry W	Md. and Penn.
Straetmans, H. I	Missouri.	Tidswell, Miss Mary A	Missouri.
Strang, J. J	Michigan.	Tingley, Prof. Joseph	Indiana.
Streng, L. H	Michigan.	Tirrell, Dr. N. Q	Massachusetts.
Strickland, L. S	Maine.	Titcomb, J. S	Illinois.
Strong, Edwin A	Michigan.	Titus, H. W	New York.
Strong, Oscar I	Iowa.	Titze, H. A	Illinois.
Strong, Rev. Thomas H	New York.	Toby, James K	Vermont.
Strunk, Daniel	Wisconsin.	Tolman, J. W	Illinois.
Struthers, R. H	Wisconsin.	Tolman, Rev. Marcus A	Pennsylvania.
Stuart, E. W	Ohio.	Tompkins, W	New York.
Stuart, Prof. A. P. S	Nova Scotia.	Tooker, Nathan C	Pennsylvania.
Stumps, S. J	West Virginia.	Tourtellot, Dr. L. A	New York.
Stuntebeck, F. H	Missouri.	Tower, James M	New York.
Stuntz, G. R	Wisconsin.	Towers, M. H	Wisconsin.
Stuver, A. S	Ohio.	Townsend, Nathan	Iowa.
Suter, Captain C. R	South Carolina.	Towson, J. W	Ohio.
Sutherland, Norris	Missouri.	Tracy, George H	Pennsylvania.
Sutton, Rev. A	Maryland.	Tracy, James E	Pennsylvania.
Sutton, Dr. G	Indiana.	Travelli, J. I	Pennsylvania.
Swain, Dr. John	Illinois and Ky.	Treat, Samuel W	Ohio.
Swan, Caleb	New York.	Trembley, Dr. J. B	Ohio.
Swan, James G	Washington Ter.	Trevor, James B	New York.
Swart, Haren V	New York.	Trible, Miss Anna C	Illinois.
Swazey, C. B	La. and Miss.	Trivett, Walter M	California.
Swift, Lewis	New York.	Trowbridge, David	New York.
Swift, Dr. Paul	Pennsylvania.	Troy, Dr. M	Alabama.
Sylvester, Dr. E. Ware	New York.	True, H. A	Ohio
Talcott, H	Illinois.	* Tuck, Dr. W. J	Tennessee.
Tappan, Eugene	Massachusetts.	Tucker, Edward T	Massachusetts.
Tappan, E. T	Ohio.	Tuckerman, L. B	Ohio.
Tate, And	Wisconsin.	Tuomey, Prof. M	Alabama.
Tavel, B. F	Tennessee.	Turnbull, Lieut. C. N	Michigan.
Tayloe, E. T	Virginia.	Turner, A. P	Indiana.
Taylor, John	Pennsylvania.	Turner, David	Virginia.
Taylor, Joseph W	New York.	Turner, T. A	Texas.
Taylor, Prof. K. M	Iowa.	Tutwiler, H	Alabama.
Taylor, L. B	Louisiana.	Tweedy, D. H	Ohio.

* Deceased

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Twiss, Thomas S	Nebraska.	Wattles, J. O	Kansas.
United States consul	Bahamas.	Weast, J. W	Arkansas.
Ufford, Rev. John	Iowa.	Weatherford, John M	Missouri.
Underwood, D	Vermont.	Webb, Miss G	Mich. and Ind.
Underwood, Colonel D	Wisconsin.	Webb, Dr. Robert D	Alabama.
Upshaw, G. W	Virginia.	Weber, P	Missouri.
United States engineers	Michigan.	Webster, Prof. N. B	Virginia & N. C.
Vagnier, Thomas	Indiana.	Weeks, James A	Pennsylvania.
Valentine, John	Indiana.	Weir, A. D	Pennsylvania.
Valentine, Felipe	Costa Rica.	Weiser, R	Pennsylvania.
Van Blascom, J	Maine.	Wellford, B. R	Virginia.
Van Buren, Jarvis	Georgia.	Wells, C. B	Nebraska.
Van Doren, A	Virginia.	Wells, J. Carson	Virginia.
Van Horne, F. B	Indian Territory.	Wells, W	Missouri.
Vankekle, L	Delaware.	West, Edmund	Ohio.
Vankirk, W. J	Alabama.	West, E. W	Ohio.
Vankirk, W. J	Missouri.	West, L. W	Wisconsin.
Vankleek, Rev. R. D	New York.	West, Dr. N. P	Texas.
Van Nostrand, J	Texas.	West, Silas	Maine.
Van Orden, W	Michigan.	Westbrook, Samuel W	North Carolina.
Van Vorhees, A	Minnesota.	Westdahl, F	Alaska Ter.
Von Frantzius, Dr. A	Costa Rica.	Westmoreland, J. G	Georgia.
Verrill, G. W., jr	Maine.	Wetherill, Prof	New York.
Vertrees, John E	Missouri.	Wheaton, Alex. Camp	Iowa & Mon. T.
Vincent, J. H	Mississippi.	Wheaton, Mrs. Daniel D.	Iowa.
Vogel, C	Missouri.	Wheeler, B. J	Vermont.
Waddell, William H	Mississippi.	Wheeler, John T	New Hampshire.
Wade, Edward	Ohio.	Whelpley, Miss Flor'e E.	Michigan.
Wade, F. S	Texas.	Whelpley, Miss Helen I	Michigan.
Wadey, H	Iowa.	Whelpley, Dr. Thomas	Michigan.
Wadsworth, A. S	New York.	Whipple, Capt. A. W	Michigan.
Wadsworth, General P	Maine.	Whitaker, B	Illinois.
Wagner, W. H	Oregon.	Whitcomb, George	Missouri.
Wainwright, Elmore	Michigan.	Whitcomb, L. F	Massachusetts.
Waite, M. C	Wisconsin.	White, Prof. Aaron	New York.
Wakeley, C. C	New York.	White, Bela	Nebraska.
Walker, David, M. D	Vancouver's isl.	White, Prof. J. B	South Carolina.
Walker, J. P	Delaware.	White, Peter	Michigan.
Walker, Mrs. Mary A	Kentucky.	White, Dr. W. T	New Grenada.
Walker, Mrs. Octavia C	Michigan.	Whitehead, W. A	New Jersey.
Walker, R. L	Pennsylvania.	Whitfield, E	Minnesota.
Walker, S. C	Pennsylvania.	Whiting, Robert C	New Hampshire.
Wallace, Samuel J	Illinois.	Whiting, William H	Wisconsin.
Wallace, Colonel W	South Carolina.	Whitlock, James H	California.
Waller, R. B	Alabama.	Whitner, B F	Florida.
Walsh, Stephen	Minnesota.	Whitney, Miss L. J	Georgia.
Walter, Dr. James	Kansas.	Whittlesey, C. S	Michigan.
Walton, Joseph P	Iowa.	Whittlesey, S. H	Michigan.
Ward, Rev. L. F	Ohio.	Wickline, Thomas J	Virginia.
Ward, Prof. W. H	Wisconsin.	Wieland, C	Minnesota.
Warder, A. A	Ohio.	Wieland, H	Minnesota.
Warder, R. B	Ohio.	Wiessner, J	Dist. Columbia.
Waring, Prof. C. B	New York.	Wiggin, Andrew	New Hampshire.
Warne, Dr. George	Iowa.	Wilbur, B. F	Maine.
Warren, James H	New York.	Wild, Rev. Edward P	Massachusetts.
Warren, James H	Iowa.	Wilkinson, C. H., M. D	Texas.
Washburn, D	Pennsylvania.	Wilkinson, John R	Ohio
Washington, L	Wisconsin.	*Willard, J. F	Wisconsin.
Watkins, W. D	Ohio.	Willet, Prof. J. E	Georgia.
Watson, George	New Jersey.	Williams, B. C	Illinois.
Watterson, H R	Ohio.	Williams, Ed. F	Tennessee.
Wattles, Miss Celestia	Kansas.	Williams, H. B	Iowa.

* Deceased.

List of meteorological observers, &c.—Continued.

Name.	State.	Name.	State.
Williams, Prof. J. R	Pennsylvania.	Woodruff, E. N	Kentucky.
Williams, Prof. L. D	Pennsylvania.	Woodruff, L	Michigan.
Williams, Prof. M. G	Ky. & Ohio.	Woods, W	Wisconsin.
Williams, Dr. P. O	New York.	Woodard, C. S	Michigan & Ind.
Williams, Rev. R. G	N. Y. & Conn.	Woodard, C. S	New York.
Williams, Rev. S R	Kentucky.	Woodward, Lewis	New York.
Williams, Prof. Wm. D	Georgia.	Woodworth, Dr. A	Kansas.
Willis, Henry	Maine.	Woodworth, Samuel	Iowa.
Willis, O. R	N. Y. & N. J.	Woolsey, Dr. W. W	Iowa.
Willis, P. L	Oregon.	Wooster, C. A	New York.
Wills, J. C	Virginia.	Wormley, Theo. G	Ohio.
Wilson, G. W., jr	Missouri.	Wray, Alex	North Carolina.
Wilson, Joseph A	Missouri.	Wright, Dr. Daniel F	Tennessee.
Wilson, Dr. J. B	Maine.	Wright, E. M	Minnesota.
Wilson, Prof. J. H	Ohio.	Wyman, A. H	Maine.
Wilson, Lavallette	Massachusetts.	Wyrick, M. L	Missouri.
Wilson, P. S	Missouri.	Yale, Walter D	New York.
Wilson, Prof. W. C	Pennsylvania.	Yellowby, Prof. C. W	Texas.
Wilson, Rev. W. D	New York.	Yeomans, W. G	Connecticut.
Wilson, W. W	Pennsylvania.	Yoaknm, F. L	Texas.
Winchell, Prof. A	Ala. & Michigan.	Yoaknm, H	Texas.
Windle, Isaac E	Indiana.	Young, A. A	New Hampshire.
Wing, M. E	Vermont.	Young, Prof. C. A	Ohio.
Winger, Martin	Ohio.	Young, Prof. Ira	New Hampshire.
Winkler, Dr. C	Wisconsin.	Young, J. A	South Carolina.
Wise, John	Pennsylvania.	Young, Judo. M	New York.
Wislizenus, Dr. A	Missouri.	Young, Mrs. L	Kentucky.
Withrow, Thomas F	Ohio.	Younger, Armistead	Arkansas.
Witter, D. K	Iowa.	Younglove, J. E	Kentucky.
Woodbridge, W	Indiana.	Zaeppfel, J	New York.
Woodbury, C. E	Minnesota.	Zahner, P	Nebraska.
Woodbury, C. W	Minnesota.	Zealy, Joseph T	South Carolina.
Wood, Samuel	New Jersey.	Zeigler, Dr. A. F	Idaho Territory.
Wood, S. B	Ohio.	Zimmerman, G	New York.
Woodbridge, W	Indiana.	Zumbrock, Dr. A	Maryland.
Woodin, S. F	New York.		

METEOROLOGICAL MATERIAL CONTRIBUTED IN ADDITION TO THE REGULAR OBSERVATIONS, DURING THE YEAR 1868.

Académie Impériale de Lyon.—Mémoires de l'Académie Impériale des Sciences, Belles-Lettres et Arts de Lyon, classe des sciences, tome seizième, Lyon, 1866–'67, 8vo., 446 pages. [Contains: Observations Météorologiques faites à 9 heures du matin à l'observatoire de Lyon du 1er Décembre 1865, au 1er Décembre 1866, par M. Aimé Drian, sous la direction de M. Lafon, professeur à la Faculté des Sciences et directeur de l'observatoire, 26 pp. Résultats de la nouvelle série d'observations ozonométriques faites par MM. le Docteur Lembert et F. Rassinier, durant l'année 1866, 32 pp. Classification des phénomènes produits par l'électricité météorique dans le bassin du Rhône et aux alentours, par M. J. Fournet, president de la commission des Orages, lue dans la séance du 6 Mars 1867, 122 pp.]

Aguilar, F. C.—Boletino Meteorologico del observatorio del Colegio Nacional de Quito, dirigido por los padres de la Compañia de Jesus, segundo año 1866, F. C. Aguilar, S. J., Quito, 1868, 36 pages, 8vo.

Asiatic Society of Bengal—Journal, Part II, No. II, 1868, containing abstract of the results of meteorological observations taken at the surveyor general's office, Calcutta, September, 1866, to June, 1867, inclusive; also tables of mean monthly readings of the barometer reduced to freezing point, for 10 years, from 1856 to 1865, and of barometric curve and registered rainfall.

Bache, R. M.—Notes on the climate of San Francisco, California, and table of temperature.

Berkey, W. H.—Meteorological record kept at Ossawatomie, Kansas, during the month of March, 1868.

Boardman, G. A.—Meteorological observations made during the month of January, 1868, at Green Cove Spring, Florida.

Boerner, Charles G.—Account of the meteoric shower of November 13 and 14, observed at Vevay, Indiana.

Bruhns, Dr. C.—Resultate aus den Meteorologischen Beobachtungen angestellt an mehreren Orten im Königreich Sachsen in den Jahren 1826 bis 1861, und an den fünfundzwanzig Königlichen Sächsischen Stationen im Jahre 1866. Nach den monatlichen Zusammenstellungen im Statistischen Bureau des Königlichen Ministeriums des Innern, bearbeitet von Dr. C. Bruhns, Director der Sternwarte und Professor der Astronomie in Leipzig. Dritter Jahrgang, Leipzig, 1868, 4to, 136 pp.

Bush, Richard J.—Meteorological observations made during the exploration of the country between Okhotsk and Nicolaefsk, East Siberia, in the service of the Western Union Telegraph Company, October 21, 1865, to March 4, 1866.

Chase, Pliny Earle, Philadelphia.—Curves indicating the relation of the moon to temperature at the surface of the earth.

Christiania Observatorium.—Meteorologiske Iakttagelser, 1867.

Cornelissen, J. D.—On the temperature of the sea near the south point of Africa. Royal Meteorological Institute of the Netherlands, 4to.

Cox, Judge Hopewell.—Meteorological observations made at Hartford, Dodge county, Wisconsin, from April, 1859, to September, 1862; copied by S. G. Lapham, for the Smithsonian Institution.

Dall, W. H.—Meteorological observations made at Nulato, Alaska, from December 1, 1866, to May 26, 1867, by W. H. Dall; also meteorological observations at Unalakleet, Alaska, from October 19, 1866, to January 23, 1867, by F. Westdahl.

Davis, R. J.—Observations of temperature near Glasgow Station, Amherst county, Virginia.

Destruge, A.—Meteorological register for the month of October, 1868, at Guayaquil, Ecuador.

Draper, Dr. Joseph.—Meteorological observations made at the State Lunatic Hospital, Worcester, Massachusetts, during the years 1859, 1860, and 1861.

Engineer corps, United States army.—Horary curves at Willet's Point, New York, from 12 days' hourly observations, July 14 to July 25, 1868; 8vo, 2 pp.

French, J. B., agent W. Lake C. & W. Manufacturing Company, Lake Village, New Hampshire.—Tables of rainfall at Lake Village and Laconia, New Hampshire.

Galveston City Hospital.—Meteorological observations made at the Galveston City Hospital, Galveston, Texas, during the year 1867, by Drs. C. H. Wilkinson, H. A. McComly, and others.

Gesellschaft für Natur-und Heilkunde in Dresden.—Die Vertheilungen der Windstärke in der Windrose von Dresden, von Dr. Ed. Loisler; 8vo.

Gibbs, George.—Meteorological statement for the year ending October 31, 1868, Sitka, Alaska Territory.

Gilman, W. S., Jr.—Weather items, Palisades, Rockland county, New York, 1868.

Hann, Dr. Julius.—Die thermischen Verhältnisse der Luftströmungen auf dem Obir (6,288 Par. Fuss) in Kärnthen, mit 1 Tafel; December, 1867.

Die Temperatur-Abnahme mit der Höhe als ein Function der Windesrichtung, mit 1 Tafel; March, 1868.

Zur Charakteristik der Winde des adriatischen Meers, mit 1 Tafel; 1868.

Hart, Charles H.—Meteorological register kept at Parana, South America, from October, 1843, to July, 1850, inclusive.

Heis, Dr.—Wochenschrift für Astronomie, Meteorologie und Geographie. Neue Folge, Elfter Jahrgang; (der "Astronomischen Unterhaltungen," 22ter Jahrgang.) Redigirt von Professor Dr. Heis, in Münster, 1868; (8vo, each number eight pages.)

Hoff, Alexander H., Assistant Surgeon United States Army.—Meteorological statement for the year ending October 31, 1868. Sitka, Alaska Territory.

Huntingdon, George C.—Meteorological tables for Kelley's island, Ohio, compiled from ten years' observations, 1859 to 1868 inclusive. Newspaper slip.

Third annual report of the Lake Shore Grape-growers' Association, containing article on climatology and grape culture, by George C. Huntington. 8vo.

Institut Égyptien.—Mémoires ou travaux originaux presentés et lus à l'Institut Égyptien, publiés sous les auspices de S. A. Mahommed-Saïd, Vice-Roi d'Égypte, sous la direction de M. le Docteur B. Schnepp, Secrétaire de l'Institut Égyptien. Tome premier. Paris, 1862, 4to, 776 pages. [Contains: Études sur le climat de l'Egypte, par le Docteur B. Schnepp, 192 pages. Du Khamsin et de ses effets; du Blé retrait, par M. Grégoire, membre de l'Institut Égyptien, 14 pages.] (The *Khamsin* is a desert wind called elsewhere Simoon.)

Jelinek, C.—Zeitschrift der österreichischen Gesellschaft für Meteorologie. Redigirt von C. Jelinek und J. Hann. 8vo, Vienna, published twice a month

Jourdan, C. H., Prof.—Meteorological curves and summary of observations for 1868, at Mount St. Mary's College, Emmettsburg, Maryland.

Kaiserlich-Königliche Central-Anstalt für Meteorologie und Erdmagnetismus.—Jahrbücher der K. K. Central-Anstalt für Meteorologie und Erdmagnetismus, vor Carl Jelinek, Director, und Carl Fritsch, Vice-Director. Neue Folge, II Band Jahrgang 1865. Der ganzen Reihe Xter Band. Wien 1867, 4to, 212 pages

Jahrbücher, Wien. 1868, 4to, 205 pp.

Kluge, J. P., M. D.—Meteorological observations made at Aspinwall, U. S C., from the week ending January 18, 1868, to week ending January 2, 1869

Koninklijk Nederlandsch Meteorolog. Instituut.—Jaarboek voor 1867. Parts 1 and 2, oblong 4to, pp. 244 and 114.

Koninklijk Nederlandsch Meteorologisch Instituut.—Meteorologische Waarnemingin in Nederland en zijne bezittingen, en Afwijkingen van Temperatuur en Barometerstand op vele Plaatsen in Europa. Uitgegeven door het Koninklijk

Nederlandsch Meteorologisch Instituut. 1864. Utrecht, 1865. Oblong 4to, 308 pages.

Lewis, Charles H.—Thermometrical record at Elizabethton, Carter county, East Tennessee, for the month of February, 1868.

Lewis, Dr. James.—Hourly records for the year 1868, by his self-recording barometer and thermometer, and reductions of the same, at Mohawk, New York.

Little, Frank.—Thermometrical observations at Kalamazoo, Michigan, during May, June, and July, 1868

Livings, B. C.—Meteorological register at Smithfield, Wabash county, Minnesota, during the month of January, 1868.

Lupton, N. T.—Abstract of meteorological register for 1868, at the Southern University, Greensboro, Alabama. (Newspaper slip.)

Macgregor, C. J., M. A.—Abstract of meteorological observations at Stratford, Canada, for the year 1867. (Newspaper slip.)

Mackey, Robert.—Thermometrical record for July, 1868, at Island creek, Jefferson county, Ohio.

Magnetic Observatory, Toronto, Canada.—General meteorological registers for the year 1867. 8vo, 6 pp.

Marsh, Roswell.—Summary of meteorological observations during the year 1868. at Steubenville, Ohio.

Merriam, C. C.—Meteorological report for the year 1868, at Locust Grove, Lewis county, New York.

Meteorological Society, (British.)—Proceedings of the Meteorological Society, edited by James Glaisher, esq, F. R. S., president. 8vo. London, monthly.

Meteorology of England. By James Glaisher. Quarterly.

Meteorologische Centralanstalt der Schweizerische Naturforschende Gesellschaft.—Meteorolog. Beobachtungen, 1867, and January and February, 1868.

Michigan Board of Agriculture.—Report for 1867, containing a paper on the influence of forest trees on agriculture, and a meteorological register for 1867, by Professor R. C. Kedzie, State Agricultural College. Lansing.

Miller, Lester A.—Maxima and minima of temperature at Woodstock, Vermont, during the month of November, 1867.

Moore, C. R.—Thermometrical record for the month of March, 1868, at Bridgeton post office, near Eastville, Northampton county, Virginia.

Moultrie, J. L.—Summary of rainfall at Union Springs, Alabama, during 1868.

National Military School of Medicine of Roumania, [through the United States Naval Observatory, Washington.] Meteorological tables.

Naturaliste Canadien.—[Contains: Météorological register at Port Neuf, Canada, for 1868.]

Naturforschende Gesellschaft zu Görlitz.—Abhandlungen der Naturforschenden Gesellschaft zu Görlitz. Dreizehnter Band. Görlitz, 1868, 8vo, 296 pp. [Contains :. Meteorologische Beobachtungen in Görlitz vom 1 December, 1863, bis 30 November, 1866, von R. Peck. P. 125–208.]

Norske Meteorologiske Institut.—Norsk meteorologisk aarbog for 1867.

Observatory of Upsala.—Observations météorologiques faites à l'observatoire d' Upsala pendant les années 1855 et 1861.

Observatoire Royal de Bruxelles.—Annales météorologiques de l'observatoire Royal de Bruxelles, publiées, aux frais de l'état, par le directeur A. Quetelet, Première Année. Bruxelles, 1868, 4to, 96 pp

Palm, Swante.—Meteorological registers kept at Austin, Texas, from 1860 to 1864, inclusive.

Parvin, Prof. T. S.—Summary of meteorological observations at Iowa City, Iowa, during the year 1868. 8vo, 2 pp.

Google

Pattison, H. A.—Report of meteorological observations at Muskegon, Michigan, during part of the month of August, 1868.

Physikalischer Verein.—Jahresbericht des Physikalischen Vereins zu Frankfurt am Main, für das Rechnungsjahr 1866–'67, 8vo., 120 pages. [Contains: Vermischte Meteorologische Notizen, von Professor Dr. Oppel, 19 pp. Ueber tägliche Barometerschwankungen und das Gesetz der täglichen Drehung des Windes, von Dr. Berger, 20 pp. Meteorologische Notizen vom Jahre 1867, 7 pp. Wasserhöhe des Mains vom Jahre 1867, 1 page. Gewonnene Ergebnisse aus den im Jahre 1867 angestellten meteorologischen Beobachtungen des Physikalischen Vereins, 4 pp. Graphische Witterungstabelle des Jahres 1867.]

Poey, M. André.—Bibliographie Cyclonique, deuxième edition, Paris, 1866.

"Generalités sur le climat du Mexique, et sur l'éclipse totale de lune du 30 Mars dernier," Paris, August, 1866.

"Sur l'inversion diurne et nocturne de la température jusqu'aux limites de l'atmosphère, et à sa repartition de l'horizon au zénith," January, 1865.

"Sur la non-existence sous le ciel du Mexique, de la grande pluie d'étoiles filantes de Novembre, 1866, et du retour périodique du mois d'Août," 1867.

"Sur la non-existence sous le ciel austral des retours périodiques des étoiles filantes, et sur leur extinction graduelle du pole nord à l'équateur," October, 1865.

"Description d'un ozonographe et d'un actinographe destinés à enregistrer, de demi-heure à demi-heure l'ozone atmosphérique, et l'action chimique de la lumière ambiante," December, 1865.

"Remarques sur les colorations ozonoscopiques obtenues à l'aide du réactif de Jaine (de Sedan,) et sur l'échelle ozonométrique de M. Berigny," October, 1867.

"Travaux sur la météorologie, la physique du globe en general, et sur la climatologie de l'île de Cuba et des Antilles," October, 1861.

Appel aux nations Hispano-Americaines. (Meteorological circular.)

Pratt, W. H.—Account of meteoric shower observed on the night of November 13 and 14, 1868, at Davenport, Iowa.

Radcliffe Observatory.—Results of astronomical and meteorological observations made at the Radcliffe Observatory, 1865.

Ravenel, T. P.—Meteorological Journal for the year 1860, kept at St. John's, Berkeley parish, South Carolina, for the Black Oak Agricultural Society, by T. P. Ravenel, secretary. Pamphlet, 8vo, 15 pp. Charleston, 1861.

Ray, Dr. John D.—Observations at Paris, Kentucky, during January to July, 1855.

Real Academia de Ciencias, &c, Habana.—Anales. (Containing meteorological registers.)

Real Observatorio de Madrid.—Observaciones Meteorológicas effectuadas en el Real Observatorio de Madrid, desde 1° de Diciembre de 1865, al 30 de Noviembre de 1866. Madrid, 1867. 16mo. 175 pp.

Informe del Director del Real Observatorio astronomico y meteorológico de Madrid al Excmo. Sr. Comisario Regio del mismo establecimiento. Madrid, 1867. 16mo. 72 pp.

Resumen de las Observaciones Meteorologicas efectuadas en la Peninsula desde el 1° de Diciembre de 1865, al 30 de Noviembre de 1866. Madrid, 1867. 16mo. 364 pp.

R. Osservatorio di Palermo.—Bulletino Meteorologico del R. Osservatorio di Palermo. (Estratto del Giorn. di Scienze Naturali ed Econ.) 4to, monthly.

Rijks Observatorium, Leiden.—Ondersockingen ombrent den Gang van het Hoofduurwerk des Sternwacht te Leiden de Pendule. Nohwii No. 17. Door F. Kaiser.

Roche, Edouard.—Recherches sur les Offuscations du Soleil et les Météores Cosmiques. Paris, 1868.

Royal Agricultural Society of England.—The Journal of the Royal Agricultural Society of England. Second series, Volume IV. London, 1868. 8vo,

294 pages [Contains: Meteorology for the six months ending December 31, 1867—5 pp. On the Temperature of the Sea and Its Influence on the Climate and Agriculture of the British Isles; by Nicholas Whitley, F. M. S.—31 pp.

Ruffner, W. H.—Weather notes taken at Tribrook farm, one and a half mile southwest of Lexington, Virginia, during the years 1867 and 1868.

Sawyer, Henry, United States consul.—Meteorological register at Paramaribo, Dutch Guiana, from January 12, 1868, to January 3, 1869. (Newspaper slips.)

Scolei Nationale de Medicina.—Tablou General de Observatiunele Meteori ologiee ale Scolei Nationale de Medicinä facute la Sptalul militar din Bucurestin Anul 1863. Directorul scholei, Davila. observator: A. Lessman. (One large lithograph sheet of tables and diagrams. Similar sheets for 1864, 1865, 1866, 1867.)

Scottish Meteorological Society.—Journal of the Scottish Meteorological Society. Published quarterly. 8vo. Edinburgh.

Scudder, S. H.—Meteorological observations taken during a trip to Cuba and the Isle of Pines in the spring of 1864.

Shepherd, Smiley.—Abstract of observations for each month of the year 1868, at Hennepin, Illinois.

Sisson, Rodman.—A table showing the temperature of the seasons for the three years from December, 1864, to November, 1867, inclusive, at North Abingdon, Luzerne county, Pennsylvania.

Smiheart, Dr. C. F.—Meteorological observations made at Houston, Texas, by Dr. A. M. Potter, from September, 1862, to October, 1865. (Dr. Potter died October 10, 1865, and this register was presented to Dr. Smiheart by his family.)

Société Météorologique de France.—Nouvelles Météorologiques, publiées sous les auspices de la Société Météorologique de France. 8vo. Paris. (Issued monthly.) Annuaire 1866, 1867.

Società Reale di Napoli.—Rendiconto dell' Academia delle Scienze Fisiche e Matematiche. April, 1865, to May, 1867. Quarto, monthly. [April, 1865, contains: "Nuovo anemografo elettro-magnetico. Memorio del Socio Ordinario L. Palmieri;" pp. 105–106. June, 1865: "Tremblement de terre de 1862 dans les environs du Lac Baïkal, (Sibérie Orientale,) par P. Kropotkine et A. Palibine;" pp. 181–195. August, 1865: "Se le osservazioni di meteorologica elettrica fatte con l'elettrometro bifiliare e col condutore mobile siano comparabili; nota del Socio Ordinario L. Palmieri;" pp. 244–249. September, 1865: "Procella magnetica contemporanea all' apparizione delle stelle cadenti; nota del L. Palmieri;" pp. 277–282. January, 1866: "Sull' elettrografo atmosferico del Thomson; nota del L Palmieri;" pp. 19–21. April, 1866: "Intorno alla determinazione della vera direzione del vento; nota del L. Palmieri;" pp. 104–105. "Sopra un nuovo metodo ordinato allo studio dell' elettricità atmosferica proposto dal Signor Monnet alla Società delle Scienze Industriali di Lione; nota del L. Palmieri;" pp. 124–125. August, 1866: "Dell' ozono e dell' antiozono; nota L. Palmieri;" pp. 268–270. September, 1866: "Sul ricorso delle stelle cadenti nell' Agosto del 1866; nota L Palmieri;" pp. 293–294. "Sulla pressione media del barometro in Napoli, dedotta dalle osservazioni del Prof. Faustino Brioschi; communicazione del Socio Ordinario A. de Gasparis;" pp. 300–304. January, 1867: "Sulla pioggia di stelle cadenti prevista pel 14 Novembre del passato anno; communicazione del L. Palmieri;" p. 18.] (Each monthly number also contains daily notices of the weather and meteorological observations made at Naples.)

Societa Reale di Napoli.—Atti dell' Accademia delle Scienze Fisiche e Matematiche. Vol. II. Napoli, 1865. 4to. 602 pp. [Contains: "Sopra un nuovo udometro autografico"—2 pp.; "Sull' ozono atmosferico nuove indagini"—16 pp.; "Del periodo diurno dell' elettricita atmosferica e delle sue attenenze con quello delle correnti telluriche"—4 pp.; "Nuovo anemografo elettro-magnetico"—4 pp. These four articles are all by Luigi Palmieri.]

Stevens, Linus.—Abstract of rainfall, &c., at Claremont, New Hampshire, for six months ending April 30, 1868.

Stonyhurst Observatory.—Meteorological reports for the years 1860, 1861, 1862, 1863, 1864, 1865, 1866, and 1867.

Stumps, S. J.—Meteorological observations made in Hampshire county, West Virginia, from July 1, 1868, to January 1, 1869.

Thornton, Dr.—Summary of meteorological observations taken at Morpeth, New South Wales, during the year 1865.

Trembley, Dr. J. B.—Meteorological synopses for the years 1865, 1866, and 1867, from observations made at Toledo, Ohio. 8vo, 12 pp. each.

United States Naval Observatory.—The November meteors of 1868. 8vo, 10 pp. and chart.

Von Frantzius, Dr. A.—Gaceta Oficial, San José, Costa Rica, containing abstract of meteorology of San José for the year 1867.

Von Oettingen, Dr. Arthur.—Meteorologische Beobachtungen angestellt in Dorpat im Jahre 1867. Redigirt und bearbeitet von Dr. Arthur von Oettingen, Professor der Physik an der Kaiserlichen Universität Dorpat. 8vo. Dorpat, 1868. 118 pp.

Waller, Robert B.—Meteorological observations made at Greenesboro', Greene county, Alabama, during the year 1862.

Walton, J. P.—Account of meteors, November 13, 1868. (Newspaper slip.)

Whitcomb, George.—Abstract of meteorological record kept near Charleston, Mississippi county, Missouri, from January to September, 1868, inclusive.

Williams, B. C.—Thermometrical record for the month of February, 1868, at Ridge farm, Vermillion county, Illinois.

Williams, S. R.—Abstract of observations for each month during the year 1868, at Lexington, Kentucky.

Wright, Captain J. W. A.—Facts in Meteorology. (Separate papers published in the Alabama Beacon, Greensboro', Alabama. Newspaper slips.)

Zeledon, José C.—Observationes meteorologicas hechas en la ciudad de San José (Costa Rica) durante el año de 1868. (Made at the Oficina Central de Estadistica and published in the Gaceta Oficial, San José.)

Unknown.—Abstract of meteorological register kept at Fort Yuma, California, during the year 1867.

Miscellaneous meteorological notes, Philadelphia

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